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A balance of benefits and burdens: academia in a digital copyright context

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A balance of benefits and burdens: Academia in a digital copyright context

by

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For the Major Program

This work is dedicated to Dan Jeutter, my life partner, who unfailingly offers honest criticism and emotional and intellectual support.

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CHAPTER 1

INTRODUCTION

> *A battle is shaping over the future of the Internet. On the one side are those who see its potential as a threat to traditional notions of individual proprietorship in information, and who perceive the vigorous extension of traditional copyright principles as the solution. On the other side are those who argue that the network environment may become a new cultural "commons," which excessive or premature legal control may stifle (56).*
> *~Peter Jaszi*

Most academics can agree that intellectual property warrants legal protection, especially in an educational context where their own publications are often traded for promotion and tenure. However, academics would also agree that a reliable exemption is required, allowing them to use copyright protected work for educational purposes. Copyright law has historically satisfied both these needs by protecting academic publications from unauthorized use, and by providing an educational exemption that allows educators access to copyright protected work in their classes, without first gaining permission or paying a royalty.

In attempting to update current copyright law to match technological advances and to harmonize with international copyright law, the United States Congress recently passed a body of legislation that weakens the educational exemption and impedes educational access to copyright protected work. And, as Peter Jaszi indicates in his warning above, not everyone, including many academics, are pleased with this legislative attempt to protect "individual proprietorship." Among the discontented are academic organizations like NCTE (National

Council of Teachers of English), CCCC (Conference on College Composition and Communication), and AAUP (American Association of University Professors) and the reasons they cite relate directly to the erosion of the educational exemption, impeded access to creative works for teaching purposes, and a diminishing "cultural commons."[1] They share the view that recent legislation has ignored the educational stakeholder, insofar as this legislation seems to have increased burdens in classroom applications, while the benefits of copyright appear to remain few. If what the aforementioned organizations charge is true, then the balance of burdens and benefits has shifted for educators and students in the classroom environment. This shift in balance undermines Article 1, Section 8 of the United States Constitution, which implies that the reason for establishing copyright law is to benefit all stakeholders.

For the purposes of this dissertation, I focus mainly on recent changes in copyright protection of digital intellectual property. This focus is both timely and appropriate to education because more academic publications and creative work are being stored in digital form, more discipline specific journals are moving online and classrooms and instruction have become more wired. Therefore, to understand, more specifically, how *digital* copyright legislation burdens academic authors and audiences, I analyze the 1998 Digital Millennium Copyright Act (DMCA) and selected text representing academic positions on recent digital copyright legislation.

The physical DMCA (or H.R. 2281) is 101 pages long and the version used for my analysis is the last of six drafts, issued on October 20, 1998 by the 106th Congress. This

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[1] Chapter 3 outlines the concerns of these organizations (AAUP, CCCC, and NCTE) through an analysis of written documents that discuss objections to the 1998 legislation previous to its passage.

version of the DMCA was integrated into the United States Code. An appendix and a short legislative act (H.R. 2215) concerning distance education passed are also included for analysis with these materials. Supporting the appendix and H.R. 2215 is a statement from the Register of Copyrights, Marybeth Peters, reporting recommendations concerning distance education regulations to the Senate on May 25th, 1999.

The primary research question driving this study and analysis is: *How has recent copyright legislation shifted the balance of intellectual property benefits and burdens for academic authors and audiences?* Secondary questions derived from my investigation of the primary research question are:

- What areas of regulation have shifted this balance?
- If a trend can be identified, how will present and future legislation continue to affect academic concerns like distance education, online syllabi, and WebCT courses?
- What would a digital copyright law look like that is fair to corporations, as well as to educators and their students?

To answer these questions, I analyze the text and rhetorical strategy embedded in both legal and non-legal documents. However, this analysis is further complicated because, unlike the traditional "hard copy" environment, the digital environment is subject to legislative control at three levels—including the physical infrastructure, the digital coding, and the content or text that appears on a computer screen. For this reason, I employ Yochai Benkler's

communication theory of layers to help me identify and unpack regulations of all three dimensions on education. Benkler's method is further explained in Chapter 3.

For the sake of efficient management of my topic, I focus only on copyright law, excluding discussions of both patent and trademark law. The reasons for these exclusions are as follows. First of all, the term of protection for patented materials is much shorter than the term for copyrighted materials. Term of protection affects academic access to materials and the shorter patent term would unnecessarily complicate any discussion of academic access.[2] Also although some gray areas exist between patent and copyright, patents generally protect only the plans or design of an invention or process, a range of materials too narrow to be useful to my analysis. Copyright coverage is much broader, as discussed later in this work.

I exclude discussion of trademark from my analysis for two reasons. First, even though trademark law represents yet another type of intellectual property protection, its application in academia is very limited.[3] Although trademark law protects such property as university logos and university published titles, these items are mostly administrative concerns. Academics

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[2] The online legal terms dictionary, Law.com Dictionary, defines patent as follows:

There are three types of patents: a) "utility patent" which includes a process, a machine (mechanism with moving parts), manufactured products, and compounds or mixtures (such as chemical formulas); b) "design patent" which is a new, original and ornamental design for a manufactured article; and c) "plant patent" which is a new variety of a cultivated asexually reproduced plant. Example: Secretary of Agriculture and later Vice President Henry A. Wallace developed hybrid corn which made him rich for life. A utility or plant patent lasts 17 years and a design patent lasts 14 years, but all types require payment of "maintenance" fees payable beginning 3 1/2 years after the issuance to keep them up. Patent law specialists can make a search of patents to determine if the proposed invention is truly unique, and if apparently so, can file an application, including detailed drawing and specifications.

[3] The 6th Edition of *Mass Communication Law* by Gilmor, Barron, and Simon further defines the function of trademark law as follows: "Trademark or service mark law protects a business's interest in a clearly identifiable sign, symbol, or slogan representing the company. Book titles, stage names, and even the call letters of broadcast stations can be registered with the Patent and Trademark Office" (601).

and their students, especially in the humanities, rarely engage in trademark use and creation; copyrighted materials are more frequently used and created. Second, unlike copyright, the term of trademark is unlimited in that, for a registered trademark, legal protection endures as long as that trademark is actively used and maintained. Discussion of unlimited length of trademark protection would unnecessarily complicate the issue of academic access to materials, just as it would for the more limited term of patent protection.

The remainder of this chapter discusses the issue of academic benefits and burdens in U.S. copyright law, identifies the problem of the imbalance of benefits with regard to corporations and education, and offers a brief history of copyright for the purpose of establishing a historical rationale for the problem, beginning with the earliest recognition of singular authorship up to our current body of protectionist copyright law. However, first I provide definitions of primary legal terms occurring repeatedly throughout this work in the section below. Other less frequently used legal terms and concepts will be defined or described when they first appear within the text or in footnotes.[4]

Definitions of Frequently Used Legal Terms Pertaining to Intellectual Property Law

- *Copyright*: The legally protected right of a creator to control the reproduction, use and manipulation of his or her creations. Some of the types of protected works are "text, drawings, musical works, architectural plans, motion pictures, software, multimedia

[4] These terms are used for both digital and traditional intellectual property law.

works, and internet-distributed content" (Valauskas and Innes 1). Animation and digital computer code are also protected under copyright law.

- *Fair use*: As described in Section 107 of the Copyright Act, the "fair use" provision suggests that copyright protection is not absolute and exclusive. The use of protected work for teaching, criticism, research, news reporting, or comment does not constitute copyright infringement. This provision is, however, no guarantee of free use of copyrighted material for the above-described uses, especially in a digital medium. While guidelines for fair use of traditional materials are covered by copyright law, these suggestions do not mandate fair use with regard to digital intellectual property use. To determine whether any particular case is covered by the fair use provision, the courts (according to Sec. 107) must consider the following four factors as guidelines to their decisions:

    1. the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes (sometimes called the educational exemption)

    2. the nature of the copyrighted work (e.g., criticism, parody, reviews)

    3. the amount and substantiality of the portion used in relation to the copyrighted word as a whole (e.g., if a 10% of a work defines most of the weight or meaning of a work, the portion of a copyright work may be considered to constitute much more than 10%)

4. the effect of the use upon the potential market for or value of the copyrighted work (i.e., how much money the creator might lose if fair use is assigned)

- *Intellectual property:* Any work that is eligible for copyright protection is can be called intellectual property, including traditional and digital written work, charts, maps, musical compositions, photographs and negatives, paintings drawings, statuary, models, motion pictures, sound recordings, computer programs, boat hull designs and architectural works. Section 102a of the copyright code says that to be eligible for copyright protection, a work must be "original," and a "work of authorship" that is "fixed in any tangible medium of expression" that can be "perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device."

- *Public domain*: A depository for works for which the term of copyright (70 years beyond death for an individual; 95 years for a corporation, in most cases) has expired. Public domain is not a physical depository, but rather a legal and conceptual one and is sometimes called the public commons. Works in the public domain may be used freely for any purpose, in any context without gaining permission from the original author or current owner and without fear of punishment for copyright infringement. When a work is in the public domain it is no longer considered an intellectual "property," in that legal ownership or proprietorship rights have been terminated.

- *Work for hire:* The work for hire provision was defined by the 1976 Copyright legislation. According to the provision's wording, an intellectual property can be

defined as a work for hire and thus, belongs to the employer, if the following three primary criteria are met:

1. Work has been prepared by the employee within the scope of employment.

2. Work has been specially ordered or commissioned for use as contribution to a collective work.

3. Work has been expressly agreed to by involved parties on both sides in writing saying that the work shall be considered a work for hire.

The court looks at an even more detailed list of thirteen additional factors in determining legal challenges in a work for hire context.[5]

An additional definitional note: For the purposes of this paper, the pairs of terms "author" and "creator;" "audience" and "user;" and "public (or cultural) commons" and "public domain" will be used interchangeably.

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[5] The Supreme Court decision in *Community for Creative Non-Violence v. Reid*, 490 U.S. 730 (1989), established that the following 13 factors must be considered by courts before ownership of intellectual property can be determined in a potential work for hire context:

- Whether the hiring party had a right to control the manner and means by which the product is accomplished
- The level of skill required to create the property
- Whether the instruments and tools used were provided by the hiring party or the hired party
- Whether the hired party worked at the hiring or hired party's place of business
- The duration of the relationship between the two parties
- Whether the hiring party had the right to assign additional projects to the hired party
- The extent of the hired party's discretion over when and how long to work
- The method of payment
- Whether the hired party had a role in hiring and paying assistants.
- Whether the work was part of the regular business of the hiring party
- Whether the hiring party was doing business
- Whether employee benefits were provided by the hiring party for the hired party
- How the hiring party treated the hired party for tax purposes

The Problem of Balance

According to legal philosopher, Herbert Morris, one of the keys to an effective system of laws is fairness. In his essay, "Punishment and Fairness," Morris explains that "This system is one in which the rules establish a mutuality of benefit and burden and in which the benefits of noninterference are conditional upon the assumption of burdens." In other words, the law will not interfere with an intellectual property user, as long as he or she avoids infringing on the copyrights of the owner. Morris's system applied to intellectual property law more specifically means that the benefit of use should equal the burden of regulation and subsequent punishment for copyright infringement. He argues that such a legal structure must protect its fundamental integrity. "Fairness dictates that a system in which *benefits and burdens* [italics mine] are equally distributed have a mechanism designed to prevent a maldistribution in the benefits and burdens" (322).

Unfortunately, the only mechanism available to "prevent the maldistribution of benefits and burdens" in the context of intellectual property law is the very brief constitutional directive that allows Congress to create copyright law and an equally brief rationale for why creation of copyright is a positive component to our marketplace-driven economy (see Fig. 1 below). This directive, comprising Article 1, Section 8 of the United States Constitution, explains that copyright law must protect the ownership of intellectual property so the author realizes financial gain and thus, will be motivated to create. Although not explicitly stated, this constitutional provision implies a balance of burdens and benefits, suggesting that while stimulating creativity, copyright law must also not stymie the audience's access to intellectual property through overprotective and/or overreaching legislation. Simply put, authors need to

profit from their labor and audiences need a ready supply of creative work in order to establish equal benefits to both parties—a *quid pro quo* exchange of profit for creativity.

Fig. 1

AUTHOR/AUDIENCE BALANCE AS EXPRESSED IN THE ARTICLE 1, SECTION 8 OF THE U.S. CONSTITUTION (*IN TOTO*)

Audience/User Provision
"To promote the progress of science and useful arts,"
Author/Creator Provision
"by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries."

Although Article 1 (shown in figure 1 above) expresses an implicit overriding goal of universal fairness by suggesting that all United States citizens must benefit from a copyright system, the Article gives no direction about how to ensure this fairness. To paraphrase Herbert Morris, copyright law must be established on a foundation of equal distribution of benefits and burdens; however, because no concrete mechanism exists to regulate that distribution, those who create intellectual property law must be vigilant on two fronts. 1) Legislators must ensure that neither audience nor author is privileged one over the other. 2) They must also make sure that the law does not privilege one group at the expense of another (e.g., corporations over the academy).

According to many educators, the notion of universal fairness regarding the benefits and burdens of copyright does not underpin recent copyright legislation, according. Preceding Congressional passage and the presidential signing of the CTEA and the DMCA, academics objected to what they saw as a corporate privileging. These objections occurred in inter-academy discussions, as well as in written and verbal protests addressed to government, legal and corporate communities, but the plaints yielded little legislative attention. The CTEA and the DMCA were passed without integrating the suggestions of educators and the organizations representing them (CCCC, NCTE, AAUP) because no mechanism was in place to ensure that all stakeholders' interests were protected.[6]

In her book, *Digital Copyright,* Jessica Litman describes how certain stakeholders historically have been included in the copyright lawmaking process. She explains that for the past hundred years, Congress has allowed *corporate* stakeholders to hash out legislative changes and then to submit their own proposals to the House and Senate.

> By the 1920's, the process was sufficiently entrenched that whenever a member of Congress came up with a legislative proposal without going through the cumbersome prelegislative process of multiparty negotiation, the affected industries united to block the bill. Copyright bills passed only after private stakeholders agreed with one another on their substantive provisions. The pattern has continued to this day. (23)

Despite the conventional process of including corporate stakeholders in the legislative process, academic stakeholders were not invited to negotiations resulting in revisions to the 1998

[6] Chapter 3 contains a more complete discussion of the NCTE, CCCC, and AAUP protests against the DMCA and CTEA.

DMCA and the CTEA[7] because no law ensured that all stakeholders would be heard during the three-year collaborative creation of the DMCA and, predictably, much academic reaction to the resulting legislation was negative.[8]

The Balance and the Academy

A primary reason for educators' strident opposition is that the balance of burdens and benefits is crucial to the creative atmosphere of academia where educators and their students simultaneously interact as authors and audiences. Instructors author textbooks, creative works, research, articles, course packs, derivations, adaptations, criticism, syllabi, online course materials, and other collaborative and individual works. And their students produce written assignments, as well as journal articles and presentations, both individually and collaboratively. Both students and instructors require others' works to inform their own writing and to advance their professional development. Evidence of this use of others' works can be found in the practice of meticulous attention to attribution.[9] As authors, educators and students' own works of intellectual property must be protected, but as audiences, who must read to stay alive

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[7] Academic stakeholders were, however, consulted by the Register of Copyrights in establishing guidelines for distance education. These guidelines (H.R. 2215) were passed by Congress as an addendum to the DMCA in 1999.

[8] Congress began considering the DMCA in 1995 when it was called H.R. 2441or the NII (National Information Infrastructure) Copyright Protection Act.

[9] Although it is an academic convention, attribution is not mandated by copyright law. The only reference to attribution is found in Title 17, Section 106a of the U.S. code. This section titled, "Rights of Certain Authors to Attribution and Integrity," refers to visual art, such as paintings, drawings and sculpture. According to the section, authors of this type of work have the right "to claim authorship of that work, and to prevent the use of his or her name as the author of any work of visual art which he or she did not create; [and] shall have the right to prevent the use of his or her name as the author of the work of visual art in the event of a distortion, mutilation, or other modification of the work which would be prejudicial to his or her honor or reputation."

professionally, educators and students require easy access to other works, access that should be and has traditionally been protected by the educational exemption in the fair use doctrine and a healthy public domain. In other words, a desirable balance of benefits and burdens in an educational setting is one where academic authors and audiences have reasonable access to healthy a public domain and legislation that protects creativity, but does not constrain academic activity.

Figure 2 below illustrates the intellectual property needs of the academic audience and author with regard to both the use and creation of written work. Notice that the items in both

Fig. 2

ACADEMIC AUDIENCE/USER NEEDS	ACADEMIC AUTHOR/CREATOR NEEDS
Reasonable Public Domain	Profit, Prestige, Credibility, Approbation
Reasonable restrictions on copying for teaching (educational exemption)	Protection from theft. (ownership, agency)
Work readily accessible for compilation, derivation, criticism, re-creation ◄——►	Motivation to Create

columns interact with each other as academic authors and audiences assume both roles or as they go from the author to the audience role and vice versa in Figure 2.

What the figure above suggests is that educators and student audiences need readily accessible work for their personal edification, as well as for creative fuel in their roles as writers. A reasonable public domain and a strong educational exemption enhance motivation

to create because works are available to provide support for academic essays, compilations, derivations, criticism and other academic activities. Subsequently, these activities produce work that ends up in the public domain or that become available under the educational exemption—in an endless cycle of academic production and consumption.

Organizations like CCCC, NCTE, and AAUP protest that the DMCA sets hurdles to academic author and audience needs by simultaneously diminishing the public domain and restricting access to work that could be the creative basis of new work for both educators and students.[10] This complaint hints at a shift in benefits and burdens. If true, then the DMCA legislators have put educators and their students at a disadvantage and have overlooked the implicit reason for copyright law—the equal distribution of benefits and burdens to all stakeholders. The DMCA privileges the financial interests of corporate authors, while ignoring the creative needs of academic authors and audiences.

A clear example of legislative privileging of corporate author to the disadvantage of academic authors is the DMCA's anti-circumvention provision, one of two main provisions that provide foundational structure to the digital legislation.[11] The provision forbids any circumvention or manipulation of the code that prevents user access and which,

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[10] Although they no longer exist in 2003, all three organizations (NCTE, CCCC, and AAUP) had pages on their websites objecting to public domain and fair use impediments in the DMCA. These objections are further discussed in Chapter 4. The URLs for each organization are as follows:

- NCTE http://www.ncte.org/homepage/
- CCCC http://www.ncte.org/cccc-ip/ (This is the Intellectual Property Caucus page of the CCCC)
- AAUP http://www.aaup.org/

[11] The other provision prohibits any manipulation or alteration of digital copyrighted information without owner permission—"information identifying a work, its author, its copyright owner, and any terms and conditions of use" (Litman 136).

simultaneously, restricts access to work that had been previously available to academic and general audiences.[12] For example, a student can no longer access all archived articles in the *New York Times* online newspaper because code prevents access and DMCA restrictions prevent circumvention of that code. The student researching online must buy a subscription to access archived articles that may be needed for a term paper. Here, the fair use educational exemption does not apply.

The anti-circumvention provision affects educator and student stakeholders in two ways. First, it unintentionally allows strict ownership of all components of a digital realm, if the owner has a coded guard at the portal designed to prevent the access of unauthorized persons to the "property." Consequently, the anti-circumvention provision effectively diminishes work in the digital public domain by broadening that which can be rendered inaccessible. In some cases, intellectual property that has lost its copyright protection due to an expired term of copyright can, because of circumvention controls, become a protected property once again. Second, an anti-circumvention provision essentially destroys the concept of educational fair use because even non-profit organizations are prevented from using a work guarded by an anti-circumvention code or device. Consequently, and most significantly, this provision restricts access to work that could provide the basis for new digital products. Thus,

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[12] Section 1201 of the DMCA defines circumvention in the following:

> *(A) to 'circumvent a technological measure' means to descramble a scrambled work, to decrypt an encrypted work, or otherwise to avoid, bypass, remove, deactivate, or impair a technological measure [underling mine], without the authority of the copyright owner; and*
>
> *(B) a technological measure [underlining mine] 'effectively controls access to a work' if the measure, in the ordinary course of its operation, requires the application of information, or a process or a treatment, with the authority of the copyright owner, to gain access to the work.*

the balance of benefits shifts away from educational players and toward owners of work protected by circumvention software or devices.

Numerous digital creations, like the virus protection software we rely on today, have been a result of the now-prohibited practice of reverse engineering,[13] a practice that involves circumvention of digital protective measures like code or password. Much reverse engineering activity takes place on college campuses for the purposes of security research and development.[14] [15] The Felten case below clearly demonstrates how recent digital regulations like anti-circumvention, mandated by the DMCA, can interfere not only with research through the now prohibited process of reverse engineering, but also with academic activities like research, publication, and conference presentation.

In the Felton case, Princeton engineering graduate student Scott A. Craver, in August of 2001, researched, wrote, and planned to present a paper that described how, as a result of a challenge from the Secure Digital Music Initiative (SDMI), he, computer scientist Edward

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[13] Reverse engineering literally means to take something apart to see how it works, to modify it in some way or to duplicate it. For software, a person would disassemble the machine code (or binary system of 1's and 0's) to discover the source code (specific programming code). Knowing the source code helps a person modify to improve software performance or modify to allow the software to operate in a different computer. Reverse engineering is also used to locate and identify viruses, to fix a bug, and to discover the code for the purpose of duplication.

[14] There is one exception to the prohibition of reverse engineering that could apply to education. The Copyright Office Summary of the Digital Millennium Copyright Act of 1998 explains it this way: "this exception permits circumvention, and the development of technological means for such circumvention [or reverse engineering], by a person who has lawfully obtained a right to use a copy of a computer program for the sole purpose of identifying and analyzing elements of the program necessary to achieve interoperability with other programs, to the extent that such acts are permitted under copyright law" (5)

[15] Admittedly, there is an educational exception to anti-circumvention described in Section 1201d of the DMCA. Unfortunately, the exception is very narrow. The section reads: "The prohibition on the act of circumvention of access control measures is subject to an exception that permits access control measures is subject to an exception that permits nonprofit libraries, archives and educational institutions to circumvent solely for the purpose of making a good faith determination as to whether they wish to obtain authorized access to the work."

Felten,[16] and eight other researchers on his team cracked a code embedded in special "infringement proof" compact discs. The following is an excerpt of SDMI's open letter challenge to the "Digital Community" to crack the code:

> *We are now in the process of testing the technologies that will allow these protections. The proposed technologies must pass several stringent tests: They must be inaudible, robust, run efficiently on various platforms, including PCs. They should also be tested by* you.
>
> *So here's the invitation: Attack the proposed technologies. Crack them.* ("Open Letter")

The "infringement-proof" code was to have prevented users from reproducing copyrighted music from file-sharing MP3 download sites through the embedding of a coded watermark.[17] The Felten group accepted the challenge, "attacked the proposed technologies," and cracked the embedded code and wrote up their findings for presentation and publication. However, in response, the music industry threatened the group with legal action under the DMCA anti-circumvention guidelines if findings were revealed in an academic conference presentation. The Felten group was forced to turn down the cash prize offered in the challenge, so they could present their research to their colleagues, but to avoid future litigation, Felten's

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[16] Edward Felten, the leader of the group who participated in the SDMI challenge, is a computer science professor at Princeton University and an activist currently trying to persuade Congress to overhaul its repressive DMCA regulations. He is currently involved in protesting the proposed Consumer Broadband and Digital Television Promotion Act, which "would require manufactures to add copy-control systems to computer hardware and software" (Foster).

[17] Sites like *LimeWire* and *Kazaa* allow users to share music files. These are called peer-to-peer sites because the sites don't store copyright-protected music; instead, they provide a conduit for user/peers to share music (MP3 files) directly with each other. *Kazaa* and *LimeWire*, therefore, are not technically violating the law. In retaliation, the music industry designed CD's that will not accept copies of protected music.

attorneys asked a Federal Court to rule on whether the group could be allowed to publish and to present their results from the SDMI challenge at future conferences without fear of punishment. On February 6, 2002, the court dismissed the case because both the prosecutor and SDMI withdrew their complaint. However the court also advised that scientific research should not be threatened by the DMCA—a ruling that supports educational research (Cherry and Siang 26-28).[18]

Despite the court's ruling, fair use, an academic copyright benefit, is not specifically provided for in the DMCA; therefore, more legal challenges from both owners and users should be expected ("Security Researchers"). The Felten case not only calls attention to the DMCA's potential to interfere with academic research, but, more importantly to this paper, it also implies a shift away from academia in the balance of copyright benefits. Additionally, this case clearly illustrates how necessary a digital public commons can be to academic research.

In his book, *The Control Revolution*, Andrew L. Shapiro insists that the anti-circumvention provision, as it stands, has a deleterious effect on the preservation of the digital commons. Shapiro calls for new rules that would relax the DMCA's strict protectionism and open up the domain to creative potential.

> Applying this principle [of maintaining a digital commons] in content means that the code of trusted systems and clickwrap[19] contracts must be altered to preserve the ability of individuals to copy and otherwise use a work for a few socially beneficial purposes—parody, commentary, personal use—that would

[18] The Felten case is discussed further in Chapter 5.

[19] "Clickwrap" contracts are those agreements embedded in software that one must agree to on screen before the activation of the software. Recently, two states have passed the Uniform Computer Information Transactions Act that makes legally binding "clickwrap" contracts that can include restrictions not mandated by copyright law, like the strict denial of the educational exemption in the "fair use" provision.

> not unduly interfere with society's overall goal of encouraging creativity. (178-179)

One could also add another socially beneficial purpose—academic research. Current and future digital copyright law is of great significance to academia, not only because the necessity of preserving a public commons, but also because of the increasing number of hypertextual materials and expanding technology as more academic journals convert to online sites, as more sources and resources for research move online, and as more colleges become "wired"—all areas regulated by the DMCA.

However, even though the academic copyright issues listed above might appear to unify the educational system behind one cause, universities are not monolithic. That is, academic, students, staff, and administrators do not think with one academic mind. Universities and educators as profit-making authors are inextricably woven into the fabric of the market economy, but universities as corporations are capable of reaping copyright benefits even at the expense of educators and their students. For example, the DMCA specifically refers to "distance education," in an amendment to the U.S. code,[20] describing both authorial rights and the limitations of those rights in vague and sometimes contradictory wording that could be used to strengthen a university's "work-for-hire" rights to educators' online works, while weakening copyright protection for that educator. Therefore, because most court decisions, up to this point, favor corporate claims to copyrights, it is not unreasonable to assume that the courts would favor the corporate university over the educator in some or even most copyright claims.

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[20] Title 17, Sec. 1203.

Another specific DMCA reference that separates corporate universities from educators and students is its specific regulation of college Online Service Providers (OSP's), and the "cyber-distribution" of online materials. This separation is defined very specifically in the following section:

> When a public or nonprofit institution of higher education is a service provider, and when a faculty member or graduate student who is an employee of such institution is performing a teaching or research function, . . . such faculty member or graduate student shall be considered to be a person other than the institution, and . . . such faculty member's or graduate student's knowledge or awareness of his or her infringing activities shall not be attributed to the institution. (Title II; e1)

The DMCA exempts educational institutions' OSP's from responsibility for copyright infringement by their employees provided they meet a list of criteria. However, now individual graduate students and faculty members may be held accountable for violations.[21] One of the peripheral reasons this liability is troubling is that, like "regular" faculty, under copyright law graduate students are considered employees with all the legal responsibilities. However, in reality, grad students have few of the same employment rights (fair salary, tenure, promotion and so on) in their roles as educators. Also, grad students are, in essence, still students—still learning and still making mistakes. Nonetheless, the DMCA still separates student/educator responsibility and university responsibility in the context of the OSP, placing much of the

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[21] Section 512e exempts the university Internet Service Provider and holds faculty members or graduate assistants liable for copyright infringement 1) if (during the course of infringement) faculty or ga's were not providing access to required or recommended online course material, 2.) if the educational institution has not been notified at least twice over three years of faculty or graduate student infringement, and 3.) if "the institution provides all of its users with informational materials describing and promoting compliance with copyright law" (U.S. Copyright Office, "Summary" 13). All three conditions must be met.

burden on individual grad students and instructors, thus benefiting the corporate university through an exemption from punishment for copyright infringement.

Additionally, because there is no clear delineation of fair use contexts in the DMCA, the educational exemption with regard to cyber-distribution can no longer be depended upon. Instructors may safely post one copy of a protected intellectual property on a code-protected online library reserve, a homepage, or a WebCT site, but there is no guarantee that sending a link to a copyrighted site to twenty students on a class email list is not copyright infringement.

The DMCA's multitude of specific exemptions for publishers, the entertainment industry, and libraries points to an increase in benefits. At the same time the burdens seem to have increased for academic authors and audiences because fair use has been set aside in the DMCA document and because Court opinions like that in Basic *Books v. Kinko's* have further weakened the educational exemption. Because of this recent erosion of the fair use doctrine, coupled with current legislation privileging the author over the audience, educators struggle to meet royalty demands for course packs and attempt to work their way through overreaching and ambiguous digital copyright legislation that touches everything from distance education courses to first-year composition computer lab courses.

Taking into consideration academic concerns for the preservation of fair use, the need for a healthy public domain, and DMCA legislation supporting strict anti-circumvention restrictions, I argue that the legal balance between author and audience benefits has shifted deliberatively toward the corporate copyright author/owner since the beginning of United

States copyright protections, but especially in light of the recent passage of the CTEA and the DMCA.

At this point, I outline the historic evolution of intellectual property protection and corresponding cultural attitudes toward authorship and audienceship to aid in understanding the trend of increasing protectionism toward the corporate author. This overview briefly documents the emerging individuation of the author, coinciding with the beginnings of intellectual property protection. The following section traces copyright and authorship history from the classical period through Medieval and Renaissance Europe to the current digital environment in the United States.

A History of Copyright

The notion of copyright is embedded in western civilization's evolving cultural attitudes toward authorship. And without a cultural concept of the proprietary author, intellectual property protection would not exist, as illustrated by the "copyright-free" early oral culture, which did not lend itself effectively to the concept of individual authorship or copyright law. With the exception of a few, like Hesiod in the 8th century and Homer from the 9th century, individual poets and writers were not usually distinguished in ancient culture. Authors were, instead, parts of a collective whole. Ronald V. Bettig credits Arnold Hauser for identifying 6th century Athens as the period during which the creator as an individual began to emerge. Hauser attributes urbanization and the resulting commercial trade for the new emphasis on individuality (Bettig 11-12). However, individuation of the author was not yet

fully evolved; therefore, copyright did not exist. Claims to profit rights from intellectual property did not occur until the late Middle Ages.

Early intellectual property rights attained through registration with the government and/or the Church probably materialized in the early 1400's for those who were favored by Royal patents in Italy according to Mark Rose in his book, *Authors and Owners: The Invention of Copyright*. Profit was a side benefit, but Church and state censorship was the regulatory motivation, in that the Church or state retained the power to punish the registered owner of intellectual property for, what they might deem, objectionable or seditious material (Rose 12-15).

Despite early intellectual property registration, both the medieval author and medieval society viewed the author as a collaborating member of a productive group (i.e., papermakers, compilers, book-binders, etc.), rather than as an individual creative genius (Bettig 14). "The notion that the writer is a special participant in the production process—the only one worthy of attention—is of recent provenience," comments Martha Woodmansee (16). The last 300 or so years of copyright law, represents a relatively short period in the approximately 2500-year history of written authorship. Because authors were not perceived as individual owners, up until the late Middle Ages, literary work as property-for-profit did not exist—a decidedly non-capitalist perspective. Additionally, the medieval audience was small because few people could read, so little profit was available for authors anyway; therefore, no need existed for a body of intellectual property law protecting the balance of author and audience concerns.

Ronald Bettig believes that the origin of the concept of singular authorship and intellectual property is linked to the simultaneous "emergence of the printing press and the rise of capitalism" (14). The printing press was introduced into England in 1476, changing the painstaking system of hand copying to a machine copying process that was faster, required less labor, and increased profit potential. The printing press also enabled increased literacy and expanded the potential audience for a work.

In 1557, England's Queen Mary gave exclusive publishing rights through a registration system to the Stationers Company, a group of booksellers, who bought sole rights to written work from the authors for a one-time flat fee. Through this registration system, the government was able to monitor the Stationers for any seditious works, making the registration program a *de facto* system of censorship, as well as a mode of profit for the publishers and booksellers. The Stationers retained this monopoly until the 1710 Statute of Anne and for decades after its passage because they, not the authors, owned much of the extant work. In fact, individual British authorship was not fully protected until England's Copyright Act of 1814.

In his essay, "From Rights in Copies to Copyright: The Recognition of Authors' Rights in English Law and Practice in the Sixteenth and Seventeenth Centuries," John Feather says that the 1710 statute rewarded the corporate owners more than individual creators until the early 19th century.[22] He argues "just as the 1710 Act was little more than a statutory recognition of the rights of the trade, the Act of 1814 was an even more belated recognition that authors

[22] Here, I am distinguishing corporate owners from corporate author/owners here. The former had no connection to the creation of the work. Today's corporate author/owners provide the environment and tools for creativity of their employees. The law recognizes this creative connection through the copyright work-for-hire provision.

had always played their part in the commerce of letters" (209). In other words, the balance of benefits did not reach all audiences and all types of authors in 1710 because early copyright law mainly protected the business rights of publishers and printers. The individual author, however, did gain some ground through the 1814 act.

Today, the corporate author/owner still benefits more than the individual author even though the early rationale for the 1710 statute—the balance of benefits—has carried through to the 21st century. The Statute of Anne, subsequent British and American laws, and modern U.S. copyright law all share a similar "balance" foundation. In their booklet, *Copyright Protection of Software, Multimedia, and Other Works: An Author's Guide,*[23] Charles Valauskas and Catherine Innes describe this foundation as a twofold balance of benefits:

> First, it [copyright law] serves to encourage individuals to devote themselves to intellectual and artistic creation by providing them with the opportunity to secure a fair return for their efforts. Second the more far-reaching and ultimate goal is to advance public interest through the talents of these creators. (3)

In 1788, seventy-eight years after the Statute of Anne, the right of the U.S. government to create copyright law was first publicly considered in Federalist Paper number 43 written by James Madison. This paper was one of a series of 85 essays published in 1787 and 1788. Each essay was an argument written for the purpose of gaining popular and political support for various concepts proposed for inclusion into the new U.S. Constitution.[24]

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[23] This booklet's target audience is academic authors in higher education.

[24] The Federalist Papers were originally printed under the pseudonym, Publius, in two New York newspapers, *The Independent Journal* and *The New York Packet*. The essays were submitted by Alexander Hamilton, John Jay, and James Madison. Number 43 appeared in the *Independent Journal*. For more information, see the web page http://lcweb2.loc.gov/const/fed/abt_fedpapers.html, which appears in the Congressional Record website.

In its wording, Essay Number 43 closely resembles the rationale embedded in the Statute of Anne (see Fig. 3 below). In 1791, this essay, evolved into Article 8, Section I of the new Constitution and provided a rationale that gave Congress the right to form laws protecting the intellectual property of authors and inventors.

Fig. 3

A COMPARISON OF TEXT OF 3 MAJOR COPYRIGHT TEXTS

1710 Statute of Anne

An Act for the Encouragement of Learning, by Vesting the Copies of Printed Books in the Authors or Purchasers of such Copies. [Rights are granted the owner or author] *for Fourteen Years, to commence from the Day of the First Publishing the same, and no longer.*

Essay Number 43 of the Federalist Papers (1788)

[Congress should have the power] *to promote the progress of science and useful arts, by securing, for a limited time, to authors and inventors, the exclusive right to their respective writings and discoveries. The utility of this power will scarcely be questioned. The copyright of authors has been solemnly adjudged, in Great Britain, to be a right of common law. The right to useful inventions seems with equal reason to belong to the inventors.*

Article 8, Section I of the U.S. Constitution (adopted 1789; effective 1790)

Congress shall have the power . . .To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.

As illustrated in Figure 3, three identifiable foundational elements emerge in all three documents. The first is that the public should benefit through "the encouragement of learning" (Statute of Anne) and by the promotion of "the progress of science and useful arts" (Number 43 and U.S. Constitution). The second element is that the author should be allowed to benefit from exclusive rights. The final and third element is that these rights be secured for "limited times" (Number 43 and the U.S. Constitution). The Statute of Anne describes that limited time as fourteen years and the earliest United States provision for term of copyright was also fourteen years.

European-based intellectual property legislation beginning with the British 1710 Statute of Anne up to the current Berne Convention laws (the modern internationalization of copyright law) and the United States'1998 Digital Millennium Copyright Act have served to strengthen the individual corporate owner's right to profit, while (at least in theory) stimulating creativity for the benefit of citizen consumers.

In addition to the DMCA, the CTEA also benefits the corporate copyright owner by lengthening the term of copyright by twenty years. Up until a century ago, authors could control copyrighted material for a renewable fourteen-year term. This term guaranteed that, in most cases, the living author would benefit financially. In 1831, the term of copyright was extended to 28 years with a 14-year renewable term that was extended to a 28-year renewable term in 1907. In 1976, the term of copyright was extended to the life of an individual author plus 50 years or for a corporation, 75 years from publication. Because of the CTEA, the term of copyright is now 70 years for single authors and 95 years for corporate authors, a period during which the work is kept out of the public domain. Also, and more importantly, even though educators can use term protected property in the

classroom under the fair use exemption during, academic audiences and authors cannot use the protected property for compiling, copying or manipulating for parody without authorial permission and also payment of royalties.

Lengthening the term of copyright is not the only legal factor that privileges the corporate owner/author. Over the last century, copyright legislation and Supreme Court opinions have increasingly upset the balance of benefits by restricting free access to protected works, by weakening the fair use doctrine, and by widening the definition of what constitutes both intellectual property and thus, intellectual property infringement. All of these legal actions result in a diminished public domain.

Lack of regulation due to rapid expansion of the Internet and computer technology inadvertently provides a very large public commons for creative activity. Recent legal changes attempt to limit the size of this public commons through control of technological architecture, a trend that provides increasing profit for corporate concerns like Microsoft. Lawrence Lessig warns that allowing corporations to succeed in controlling Internet architecture will be at the expense of technological creativity, and, one could assume, that by extension academic authors and audiences would be especially affected because of their intense involvement in technological creativity. Lessig offers the following choice with his warning:

> We can embrace this return to the architecture of creativity that has defined modern American life—perpetual control by homogeneous corporations of a system for creativity focused primarily on a mass audience. Or we can embrace the architecture the Net was. This is a choice we cannot avoid. (239)

Even though corporate authors have greatly benefited from recent copyright law, many technologically inclined groups and individuals are attempting to undermine these

benefits. Scores of legal actions and counter-actions demonstrate emphasize a perceived shift in benefits toward the corporate author and a resulting grass roots rebellion against strict digital regulation that marginalizes individual and academic authors and audiences. Some of the activities that exemplifying the tension that exists between the two opposing camps are:

- Rapid improvements in computer technology and the corresponding increase in technological knowledge among non-experts have facilitated the authorship of all who have a computer and access to the Internet. Today anyone can be an author, a publisher, and a user simultaneously. Computer users are not just passive consumers of what media has to offer (e.g., as in TV watching); they actively interact and manipulate media offerings (Benkler 562). Therefore, authorship in this technological age is less "sacred" than it has been within the "Romantic" view of authorship, a view that is not reflected in current legal attitudes. Corporations see profit potential in the digital public domain, and Internet rebels perceive this push for ownership as an abridgement of fair use rights. In her article, "Gen X Occupies the Cultural Commons: Ethical Practices and Perceptions of Fair Use," Joan Livingston-Webber describes this tension:

> [T]his cultural commons [is] an area under siege, currently and most vigorously by corporate holders of copyright who work to transform the function of copyright law from enlarging the public domain to guaranteeing private profit. Those who have taken the term "GenX to name themselves and their cohorts are another group active in the skirmish, seeing themselves in direct engagement through practices that they believe are ethical—though

they also believe these practices run contrary to laws governing fair use. (263)

- Attempts to protect the digital intellectual property of corporate authors through the Digital Millennium Copyright Act (DMCA) have resulted in a flurry of legal challenges, especially from the "GenX"ers that Livingston-Webber describes above. Although court decisions seem to focus more on corporate creator/owner concerns than citizen/audience concerns, some recent decisions, as illustrated by the Felten and Brunner cases (discussed in Chapters 3 and 5), weaken this trend somewhat. [25]
- Technology-savvy individuals, who create file-sharing sites and who reverse engineer access-controlled electronic intellectual property and publish the codes to these works, challenge individual, corporate authorship (e.g., Napster, DeCSS, Gnuttella, and Aimster). These underground actions directly challenge the 18th century notion of the singular corporate author and shift the emphasis to a collaborative and interactive audience who simultaneously use and author these works, despite pro-author legislation. Users become authors as they manipulate and redesign software, and then pass it on to others who do the same in a potentially never-ending cycle.

To analyze how and the extent to which digital copyright law burdens and benefits have shifted for academic authors and audiences—I examine certain primary source documents.

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[25] On November 1, 2001 the Sixth Appellate District Court decided in favor of Andrew Brunner, who used a reverse engineered DVD code written by 15-year old Norwegian, Jon Johanson, who posted the code to an Internet bulletin board. The defendant, Brunner, asked the Court to reverse the injunction of a lower court on the basis that the ruling violated his 1st amendment rights. For more information, see *DVD Copy Control Association v. Andrew Brunner.*

They include the sixth version of the DMCA plus Appendix V of the DMCA and an addendum (H.R. 2215), both of which concern distance education issues.

In the next chapter, I review multidisciplinary scholarship on authorship and audience, the commodification of intellectual property, and finally current copyright legislation.

Chapter 3 briefly describes the NCTE, CCCC, and AAUP documents I use to identify academic burdens and balances in the digital copyright environment, and explains my research methodological approach--Benkler's theory of layers—which is employed to analyze the three layers of DMCA regulation—the physical infrastructure, the code layer, and the content layer.

The results of my research are unpacked in Chapter 4. Findings include an identification of DMCA controls that affect educators and their students in three layers of digital technology—the content, the code, and the infrastructure layer. I will summarize chapter with a discussion of the shifting burdens and benefits, as is revealed by the findings.

Finally, Chapter 5 concludes with an expanded discussion of recent legislation and the legal trends and discusses possible current and future digital copyright legislation and their potential effects on the academic authors and audiences.

CHAPTER 2

A REVIEW OF LITERATURE

The literature that informs my research and argument is multidisciplinary. Intellectual property issues affect all fields in the academy, motivating a rich diversity of scholarship. Using a variety of perspectives helps me paint a more complete picture of academic concerns and also underscores the common concerns different academic fields share regarding digital copyright law. The following is a list of the fields that support my research and also what these fields contribute to my research.

- RHETORIC AND COMPOSITION. For a perspective on audience and author interaction and for issues specifically relating to teaching of writing
- LITERARY CRITICISM. For historical perspectives on law and literature and also for critical perspectives on authorship
- PROFESSIONAL COMMUNICATION. For issues relating to the practice and teaching of Professional Communication, as well as work-for-hire issues
- CULTURAL STUDIES. For a view that articulates law as a cultural artifact
- LAW. For an understanding of abstract legal issues, as well as information about concrete legal information

Methods from the above fields contribute to discussions of digital intellectual property regulation and the question of constitutional balance by unpacking the following constituent themes:

- authorship and its relationship to audience
- the commodification of creative work
- the fair and/or unfair regulation of creative works

The remainder of this chapter mixes the different academic fields' scholarship in an organization that follows these themes, in the order listed above. Approaching my literature review in this manner allows me to emphasize the common ground that different fields of scholarship share, while developing a picture of the exigencies motivating a multi-disciplinary academic protest against current digital copyright legislation. First, I begin with a discussion of authorship and audience.

The Author and Audience

> *Let the ancient serve the present, let the foreign serve the national; by developing that which has been accomplished, one creates something that is new.* *~Mao Zedong*

Much academic discussion of copyright law centers on who makes the most valuable contribution to textual meaning—the author or the audience. An understanding of how value occurs is important because whomever law perceives to be the most important contributor to culture through the construction of textual meaning is best served by copyright law. In the epigraph above, Mao Zedong de-emphasizes the value of the author in this equation,

suggesting that the author's unique genius is not necessary in the creation of something new. If one accepts that cultural and historical contributions contribute to creation, one may then reasonably assume that few completely new works of creativity exist. If that is the case, then perhaps the audience itself creates textual inimitability in its interpretation.

Copyright law did not privilege the author as a unique creative entity until the Romantic era (i.e., late 18th century to the early 19th century). During the early years of the 1710 Statute of Anne, copyright law typically protected those who owned the presses and publishing houses, at least until the late 1700's. Today, a Romantic view of the singular, originary, genius endures and this view motivates the increasing legal protection of the individual. Educators in disciplines such as linguistics, literary criticism and composition, on the other hand, have began to recognize collaboration and the fundamental contributions of the audience to textual meaning in the last century, a recognition that is antithetical to dominant cultural attitudes toward authorship, as well as to the resulting construction of law protecting authorial production.

An early example of scholarship in this vein is the work of Mikhail Bakhtin a literary and social critic, who offers his dialogic theory, a theory representing a profound shift away from views expressed by theorists such as Ferdinand de Saussure. While de Saussure concentrated on the concrete identification and separation of signs and signifiers or on locating meaning in a single text or in the psychology and experience of the author, Bakhtin saw the force of meaning taking place in the *connection* or dialogue between author and audience, sign and signified, past and present. Pointing out the weakness in focusing exclusively on author imbued meaning, he argues, "Signs emerge, after all, only in the

process of interaction between one individual consciousness and another" ("Marxism and the Philosophy" 929). Bakhtin suggests that meaning is negotiated in those complex intersections where various real time, history, and cultural players meet. These players may include, but are not limited to the author, the audience, the author's own internal audience, and other social and historical influences.

Bakhtin's notion of the polyvocal nature of authorship underscores the importance of a healthy public domain in that he recognizes that creativity is not inimitable and singular; new intellectual work depends on other voices and on cultural contributions. Increasing regulation that diminishes access to and the number of works (read: the number of voices) in the public domain neither benefits nor credits the audience. More importantly, severely limiting the public domain diminishes potential creative work that depends on the work of others—which depended on the work of others in perpetuity—ignoring the author-ity of polyvocality.

Bakhtin, further supporting the idea of a shared cultural commons, takes issue with those who he feels deny other voices and the socio-historical embeddedness of creative work ("Speech Genres" 945-946). He argues that defining meaning-making as the principle activity of the speaker (or writer) is a simplistic position that denies other contextual contributions. "[T]he schema distorts the actual picture of speech communication, removing precisely its most essential aspects. The active role of the other [in this schema] is thus reduced to a minimum" ("Speech Genres" 951) Not only does he recognize cultural and historical contributions of the non-authorial "other," Mikhail Bakhtin also recognizes the significance of the audience in the creation of meaning—the essential resultant activity of a creative work.

Two 1960's French poststructuralist social and literary critics, Michel Foucault and Roland Barthes, go a step further than Bakhtin and report the death of the Romantic author, arguing for the primary importance of the audience in textual creation and for the fundamental influencing reality outside of the text. Near the conclusion of his 1968 essay, "The Death of the Author," Barthes contends that the importance of a text is in the function of a reader—that the reader is the site where complex multivocal contributions to a text are focused, not where singular genius is realized. He says, "the birth of the reader must be at the cost of the death of the Author" (148). This idea of authorial death undermines the notion of the singular Romantic author and acknowledges the significance of the audience's role in constructing textual meaning. Barthe's emphasis on the function of audience in meaning making may also offer a rationale for legal and philosophical challenges to the DMCA's hyper-protectionist regulations.

In support of Barthes's emphasis on audience, Michel Foucault underscores the relative unimportance of the author in the final construction of meaning concluding that the author loses identity in both the writing of and in the reading of a text. He argues against a static author-imbued meaning, explaining that "the form, the complexity, and even the existence of this function [the author-function] are far from immutable[7]" (138) and he imagines a future without the need for a specific, identifiable genius, a future filled with written discourse of anonymous authorship. Although he seems to be negating the need for copyright protection, he

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[1] Foucault defines the author function in the following excerpt from "What is an Author?" :

> [T]he "author-function" is tied to the legal and institutional systems that circumscribe, determine, and articulate the realm of discourses; it does not operate in a uniform manner in all discourses, at all times, and in any given culture; it is not defined by the spontaneous attribution of a text to its creator, but through a series of precise and complex procedures; it does not refer, purely and simply, to an actual individual insofar as it simultaneously gives rise to a variety of egos and to a series of subjective positions that individuals of any class may come to occupy" (130-131).

may be only speaking of cultural attitudes, but a cultural acceptance of the importance of the audience would undermine the over-protection of the singular and corporate author and would ultimately affect to whom the law assigns most of the benefits. Currently, however, digital copyright law remains unchanged in focus and so the singular author survives, notwithstanding recent legal challenges like the successful challenge of Andrew Brunner, a California teenager who posted the reverse engineered DVD code to the Internet. In doing so, Brunner invited the collaborative re-authorship of the code by the user, a direct example of the "immutability" of the author-function. Brunner's challenge to digital copyright law and others will be addressed in Chapter 5. The real problem of constructing fair copyright law is in balancing the financial and creative concerns of both audience and author especially in an educational context where a single person more often than not assumes the author and audience roles in researching other work and in integrating that work into his or her own work for publication.

Michel Foucault both answers and debates Roland Barthes' idea of the death of the author in his work. He makes clear that his goal is not to support and describe cultural and historical contributions to creativity; instead, he examines today's "singular relationship that holds between an author and a text, the manner in which a text apparently points to this figure who is outside and precedes it" (115). This relationship is borne out by evidence that current writing not only points to itself (sign constituting content), but its signs also relate to the signifier. Foucault calls this the interplay of signs and signifier. Thus, the author has become more important today. Current evidence of an emphasis on the author, according to Foucault is in the proliferation of biographies and autobiographies of authors and in writing about the writing process—all writing that points to itself and to its author. Moreover,

especially in academic texts, front material like acknowledgements, dedications, prefaces, introductions, and forwards are abundant. This "meta"-material also constitutes writing that underscores authorial and textual value.

The paradox embedded in the proliferation and importance of meta-text is the simultaneous importance of the author and the author's disappearance into the text. This paradox is also present in other genres beyond the front material. For example, the author's unique characteristics disappear in the expressions of characters and the narrative quality in fiction writing or in business conventions, genre expectations, and boilerplate of a text in professional communication. Foucault says "If we want to know a writer in our day, it will be through the singularity of his absence and in his link to death, which has transformed him into a victim of his own writing" (117), but "victim" may be too one-dimensional a term to describe the software redesigner or coursepack compiler; perhaps, creative collaborator is more appropriate.

Foucault also interrogates the exclusive relationship between and author and text, as he explores just what an author's work is. Does a complete collection of a particular author's work include all notes, drafts, post-it note material, shopping lists, and so on? Where do we draw the line? *Most importantly*—What constitutes originality? *Therefore*—What works must the law protect? In asking these questions, we search for the uniqueness that constitutes a particular author's work and, thus, the author's unique style in defining that work. We are examining what Foucault calls the author-function.

The legal definition of uniqueness or originality has been elusive though. On one hand, the law, according to legal scholars, Catherine Innes and Charles C. Valauskas, says that

originality means "that the work was independently created and not copied from another work" and also that the work must exhibit "at least a minimal amount of creativity" (*Copyright Protection* 2). On the other hand, certain compilations like databases have been denied copyright protection on the basis of non-originality and others, like anthologies, have been accepted for protection.[27] An anthology's copyright implies "a minimal amount of creativity." Some anthologies, however, require little new creativity beyond organizational style and the "meta-textual" front materials (i.e., preface, introduction, table of contents). One could argue that if an anthology can be copyrighted, then the educator who compiles a coursepack should also be protected and defined as an author by law. After all, a coursepack is equivalent to an informal anthology and may also include front materials. Nevertheless, the coursepack's originality, at this point, has been ignored by law, as illustrated when the Court decided for Basic Books in the 1992 case, *Basic Books v. Kinko's.* In this case, Kinko's was found guilty of copyright infringement for not gaining permission from author/owners before assembling, copying, and selling coursepacks to college students. The educator who compiled the coursepack did not even figure into the litigation discussion (758 F. Supp. 1522). Denial of protection for and even the legal existence of the coursepack compiler, acknowledges and protects the rights of the anthology compiler, privileges publishing houses, and ignores the academic author and audience.

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[27] In *Feist Publications. v. Rural Telephone Service* (1991), the Supreme Court ruled that Rural Telephone's white pages were not eligible to be protected by copyright because it lacked the enough creativity to call it original (111 S. Ct. 1282)

Conversely, in a May, 2000 decision in the case *eBay v. Bidder's Edge*, the United States District Court of Northern California found that eBay's auction item database was original enough to merit copyright protection. The court enjoined Bidder's Edge an auction site search engine from searching and using the data on eBay to inform its users of what was up for auction. This decision probably sets a precedent for protection of other online databases (100 F. Supp. 2d 1058 (N.D. Cal. 2000).

Foucault's questions about what constitutes originality and thus authorial ownership is also a concern for compositionists and rhetoricians Andrea Lunsford and Susan West, in their 1996 essay, "Intellectual Property and Composition Studies." The authors criticize our culture's increasing preoccupation with the ownership of such things as surgical methods and gene mapping, likening this possessive mentality to a two-year old's whining complaint of "Mine" (386). They draw a correlation between this possessive mentality and contemporary academic concepts of textual ownership and plagiarism, pointing out that "the academy has been obsessively concerned with plagiarism, with 'false' ownership" (398). They argue for collaborative knowledge production and question the cultural construction of the original genius, and like Michel Foucault, they imagine an academic context in which nothing can be deemed original.

> What happens if the producers of such knowledge, the Romantic "authors" or even "author functions," are so widely dispersed as to be invisible, parceled out in so many ways and through so many different hands that "ownership cannot be fixed? What happens if . . . those associated with electronic technology effectively destroy old systems of the "right" to copy? What then? (399)

Andrew Brunner's publication of the reverse engineered DVD code to an online bulletin board exemplifies what West and Ede refer to here. One can easily imagine that many individuals contributed to the engineering of the code—beginning with the person who first conceived of and employed the Binary Code.[28]

This authorial rush to ownership has provided the context not only for the passage of the DMCA, but also for the passage of a 20-year copyright term extension that rewards not necessarily the real author/creator, but rather the owner of copyrights (i.e., publishers, distant

[28] The Binary Code is an electronic coding scheme that communicates information by means of 1's and 0's.

relatives, corporate entities). This owner may be the originator or author, but most frequently is not, especially in a corporate setting because of the 1976 "work-for-hire" provision which broadly says that what is created in the employ of another belongs to the employer.[29] Additionally, the anti-circumvention provision of the DMCA and the discounting of fair use strengthen the corporate owner and property union and guarantee a fertile source of revenue for business.

In the digital realm, intellectual property is far-reaching. In providing new profit potential for corporations, recent copyright legislation has substantially diminished the digital public domain by forbidding the circumvention of password protection and anti-circumvention code to those who would manipulate, improve, and produce new software for public use. In other words, the DMCA has reduced or made difficult opportunities for creative collaboration with the ideas contained in the free public domain.

Andrea Lunsford has rejected the emphasis on exclusive and individual authorship of both traditional and hypertextual work. Although the fragmented nature of postmodern authorship would appear to challenge old notions of singular authorship expressed by those like Foucault and Barthes, Lunsford suggests, in her 1999 *College English* essay, "Rhetoric,

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[29] The 1976 Copyright Act describes "work-for-hire" as 1.) a work prepared by an employee within the scope of his or her employment *or* 2.) a work specially ordered or commissioned as a contribution to a collective work, as part of a motion picture or other audio-visual work, as a translation, as a supplementary work, as a compilation, as an instructional text, as a test, as answer material for a test, or as an atlas, if the parties expressly agree in a written instrument signed by them that the work shall be considered a work made for hire.

In determining complex cases challenging "work for hire" the courts consider 13 factors described in the 1976 Copyright Act. These factors include considerations such as whether the hired party worked at the hired party's place of business, the method of payment, and whether the hired party received any benefits from the hiring party.

For additional information, as it applies to educators, read "Who Owns My Work? The State of Work for Hire for Academics in Technical Communication," by Tanya Herrington. *Journal of Business and Technical Communication.* Vol. 13, Issue 2 (April 1999).

Feminism, and Textual Ownership," that these postmodern attitudes actually reinforce the ideas of the importance of Romantic authorship, evidence which can be found in the increasing protectionism of copyright law. Postmodern ideas about the "death of the author" and powerful corporate ownership of intellectual property actually marginalize those who collaborate, many of whom are women. Lunsford argues that this "sovereign 'author' construct" is especially prevalent in cyberspace (532).

Moreover, she argues that the advances in computer technology have contributed to the increasing privileging of the corporate author and have also expanded the realm of intellectual property.

> In spite of their wide public use and the fact that they are the products of a wholly collaborative process, computer programs . . . are increasingly defined in the law as works of "originality" and "creative genius," that is, as works that fall within the expansive protection of copyright and author's rights [i.e., individual rights]. ("Rhetoric, Feminism" 532)

However, Lunsford, praises a few existing mavericks who support the Internet as collaborative site. Examples she offers are the software browser, Netscape Navigator, which released its source code to the public; Pamela Samuelson, law professor, who shares the html code to her teaching website and has railed against copyright laws that "infringe on the sharing of knowledge in society"; and the collaborative web designing feminist community, Spiderwoman ("Rhetoric, Feminism" 537).

In his essay, "Agency and the Death of the Author: A Partial Defense of Modernism," John Trimbur, rhetoric and professional communication scholar, acknowledges the problems of an environment that privileges individual authorship while denying author-ity to collaborative

authorship. However, unlike Lunsford, he does attempt to defend the modernist support of the singular producer of creative work in a capitalist society, contending that the academic trend toward acceptance of "Death of the Author" is nothing more than a reaction of the marginalized against the powerful. He explains:

> In my view, what is needed is not a new theory of agency but the old modernist sense of solidarity: the workers against the bosses, the people against the ruling bloc, the oppressed against their oppressors. And just as I want to keep this part of modernism alive, I now want to go back and check the vital signs of the author. (295)

Trimbur's neo-Marxist scenario of the ruling bloc and "the oppressed against their oppressors" would not impress those capitalist oppressors who make copyright law, the same capitalist oppressors who would (at least in theory) deny the importance of the audience and the innate collaborative nature of authorship supported by Lunsford, West, and Bakhtin.

Today, western culture strongly supports a capitalist vision of the corporate author and corporate ownership of intellectual property. An example of this vision is found in our government's quick support of CEO Michael Eisner and his Disney Corporation in supporting the 1998 CTEA. Although this vision of a corporate author as creative entity does not completely match the Romantic idea of the solitary genius in the garret, the legal structure is tailor-made to single author/owner protection and simply does not and cannot support collaborative authorship because of cultural attitudes and resulting legal structure.

Defining ownership, in fact, is key to exploring current copyright theory. In her book, *The Cultural Life of Intellectual Properties: Authorship, Appropriation, and the Law*, law professor and cultural studies theorist, Rosemary Coombe explains that the commodification of

creative work coincides with the late 18th century transition of the author from a hired creator supported by a wealthy patron to an independent producer protected by copyright. "No longer reliant upon the largesse of patrons, men [sic] of letters sought to distinguish their creative activities as artists who required freedom from the pressures of employment . . .exactly as texts were commodified" (254). A benefactor reaped the value of a creative work for the price of the room and board of an author. Copyright laws gave the author ownership and thus, independence—providing income without interference, and control of who could buy, adapt, compile, manipulate, or copy a text. The text, now out of the exclusive control of the benefactor, became a product to be marketed and sold for the economic benefit of its creator.

Commodification of Intellectual Property

> *A commodity appears, at first sight, a very trivial thing, and easily understood. Its analysis shows that it is, in reality, a very queer thing, abounding in metaphysical subtleties and theological niceties (215).*
> *~Karl Marx,* Capital

The tension between corporate and academic interests both reflects and affects the "tension between the monopolistic character of intellectual property and its normative goal of enhancing the flow of information and ideas" (Bettig 8). Unfortunately, today's digital copyright law and term extension does not balance these dual purposes. Instead, it funnels intellectual property through a profit-making machine to the benefit of the corporate author/owner. Works of digital creativity are quickly becoming pure commodity, while little remains of the original and fertile digital public domain. Communication law theorist, Yochai Benkler contends, "this increasing propertization [i.e., commodification] is attained at

the expense both of innovation and of robust democratic discourse that a well-balanced intellectual property law could serve" ("From Consumers to Users" 570). And much of that innovation and democratic discourse begins and sustains on college campuses among both students and educators. To understand why the digital realm seems to be emerging as a medium for complete ownership, cultural studies scholars like Rosemary Coombe examine commodification as the concept that underpins ownership.[30]

The commodification of anything is generated by two economic concepts—demand and perception of value. These two concepts interact. If there is no demand; there is no perception of value. And conversely, if there is no perceived value, then there is no demand. So how does a work gain value? And why are some works perceived to be more valuable than others? For example, why is a videotape of a Disney cartoon more valuable in the marketplace than an academic essay? They are both works of intellectual labor, both serve their audiences well, and both are in demand. The difference is in how large a market exists for each, not in how well they satisfy their intended audiences. Understanding why corporate creative activity is perceived as more valuable than academic creative activity might reveal something about why the law privileges the singular corporate author over academic authors and audiences. So how did the Disney cartoon gain such value as a commodity? And, why does recent copyright law protect increasing commodification of corporate-owned work to the disadvantage of educators and their students? This system supported by cultural attitudes, devalues academic creative activity, hyper-values corporate works, and also makes access to valued work more difficult for those in academia.

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[30] Commodification of intellectual property and resulting copyright law is extensively discussed in Coombe's book, *The Cultural Life of Intellectual Properties*. See Works Cited page for complete citation.

Understanding the commodification of intellectual property—creations that have little consistent correlation to the labor required to produce them or to their inherent use-value—requires an understanding of Karl Marx's concept of fetishism.[31] Marxist philosophy only adds to our understanding of how property gains value, it does not underpin this paper. Marx does offer what other theorists—including compositionists, legal scholars, and cultural studies theorists—do not, a specific basis for understanding why corporations and the law as a cultural extension of corporations now hold certain traditional and digital intellectual properties in such high esteem, why these properties command such a high price, and why they are protected from easy access.

In "Das Capital," Marx says that all goods begin as something from nature. Then those goods are manipulated in some way to change the natural resources into commodities with use-value. In the case of text, the freely available words, phrases, and ideas (in nature) are manipulated into a whole that conveys a unique meaning. The work becomes useful in that it entertains, informs, or persuades. But, according to Marx, the overvaluing does not originate at this stage. Something happens. The text becomes imbued with a mystical or mythical quality. In the case of intellectual property, that quality is a long-enduring cultural attitude defining authorship as Romantic genius and text as the characterization of that genius. That embodiment of Romantic intelligence is perceived as something that has relationships with other texts. It becomes personified. According to Marx, "The Fetishism

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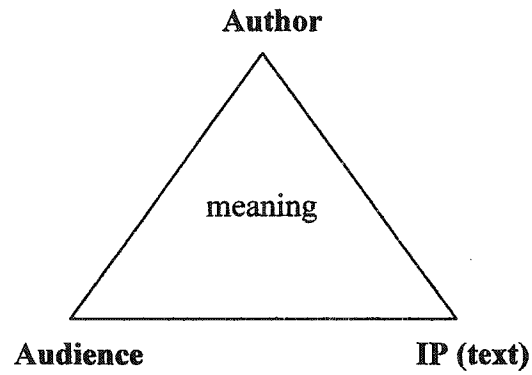
[31] In part III, section 2 of "Capital" Marx explains that use-value is the inherent value a commodity has defined by its usefulness and borne out by its basic value in exchange. A pair of shoes, for example, is a useful good, and in a money-less context would have exchange value. In referring to capitalist ideology, Marx says two goals exist in production of goods, "to produce a use-value that has a value in exchange, that is to say an article destined to be sold, a commodity; and secondly, the desires to produce commodity whose value shall be greater than the sum of the values of the commodities used in its production" (239).

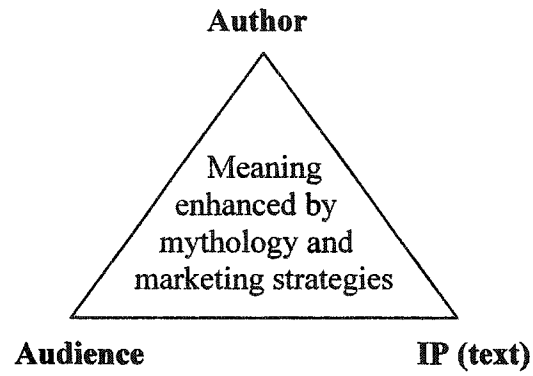
[or overvaluing of commodities] has its origin . . . in the peculiar social character of the labour that produces them" (217). In other words, copyright law protects what is perceived by culture as the quintessence of sacred genius—the Romantic author becomes the Romantic text.

Fig. 5

ACADEMIC RHETORICAL SITUATION



CORPORATE RHETORICAL SITUATION



Consider again the case of a Disney cartoon. Walt Disney has been mythologized as the godlike entrepreneurial author/genius of wholesome fun and entertainment. The qualities of wholesomeness and entrepreneurship are valued components of American identity mythology. This mythology is magnified by corporate marketing strategies, marketing

strategies that do not play much of a role in the audience/author/text or intellectual property triangle of the academic rhetorical situation. The Disney cartoon with its mystical quality, amplified through marketing strategy, has great economic exchange value as illustrated by the corporate rhetorical triangle shown above in Figure 5.

Accordingly, the law casts a wide net to protect that value, as illustrated by the easy passage of the 20-year term extension, a law designed primarily to protect the earliest Mickey Mouse cartoon, *Steamboat Willy,* which was due to enter the public domain in 2003.[32] Strict protection of intellectual property adds to the monetary value of a work in that whatever is difficult to attain (e.g. caviar or truffles) gains in value. A mystical or mythical quality, marketing strategies, and legal protection add to the perception of value of a work.

Cultural studies and legal scholar, Rosemary Coombes finds similarities between the Marxist concept of fetishism and semiotic representation. In a semiotic analysis, the mythological characteristic of fetishism would be the signifying representation suggested by the sign (commodity). Commodities become self-referential when they are marketed as unreal representations of themselves. To increase the value, commodities are woven into the fabric of "American" ideals, as expressed in the General Motors slogan, "What's good for General Motors is good for America" (55). These commodities come to represent culturally accepted qualities of Americanism like entrepreneurship, individualism, patriotism, or wholesomeness; and these representations attract many consumers who willingly pay for those signified values. In referring to the recent protectionist changes in copyright law

[32] Michael Eisner, Disney Corporation's CEO donated thousands of dollars to the campaign coffers of several congresspersons who four months after the donations voted in favor of the copyright term extension (Newmyer 2240)

resulting from the intensive marketing of representation (i.e., of ideals, of values), Coombes observes that:

> The twentieth century has witnessed a massive expansion of the legal protections available for publicly circulating forms of signifying property; in many sectors of the economy, texts deployed to market goods may be more valuable than the physical assets necessary to create the product. (56)

Consumers pay for and value the signified qualities—or as Marx would put it, the mythology—as much as the product itself.

Most academic work does not inspire consumer spending, as much as corporate work does. Even though both corporations and academia share the same authorial myth, this inequity in economic value between academic and corporate products begs the following question: If both types of work are created by the culturally constructed and mythologized Romantic genius, then why aren't the works of both academia and corporations equally valuable in the marketplace and why doesn't law equally protect them both?

The answer might be in where the Romantic mythology diverges. The Romantic academic author is subconsciously identified as a struggling artist, living in an unheated garret and catching sparrows on his windowsill like Emile Zola. Therefore, economic wealth is not a component of academic authorial identity. However, instead of the poverty-stricken author, the successful American business entrepreneur characterizes the Romantic mythology of Disney and other corporate entities. Because profit is the basis of our marketplace economy, copyright law protects those who make the most profit or those our mythology associates with wealth—the corporate entrepreneurs.

Academic concerns, however, include not only the traditional copyright protection for profit and protection from theft, but also a reasonable public domain and a dependable educational exemption for the purpose of research, teaching and learning (see Fig. 2, Chapter 1). Conversely, a corporate environment whose emphasis is on broadening the commodification of intellectual property perceives the public domain as profit potential and the educational exemption as an erosion of profit potential. Because the DMCA and 20-Copyright Term Extension are laws created by a legal system that reflects corporate ideals, these laws support the singular corporate author/owner, profit, and profit potential—not the research, teaching, and learning activities of the academy.

The Fairness or Unfairness of Copyright Law

> *We are in the midst of a pitched battle over the spoils of the transformation to a digitally networked environment and the information economy. Stakeholders from the older economy are using legislations, judicial opinions, and international treaties to retain the old structure of organizing production so they continue to control the empires they've built or inherited. Copyright law[is]. . . being warped to fit the sized of the hierarchical organizations of yesteryear ("The Battle" 90).*
> *~Yochai Benkler*

In the above passage, Yochai Benkler argues that copyright law bends to the needs of corporate hierarchies. In a marketplace economy, this legal and corporate duet is to be expected. In their essay, "The Author in Copyright: Notes for the Literary Critic," Monroe E. Price and Malla Pollack, literary critics, explain the value system that underpins our legal system regarding art and literature: "[T]he status of the creator (an approved artist or author) is not the determinant of protection, but more fundamentally the relationship of works of art

to the marketplace [is the determinant]" (451). Whether the mythology and value of the Disney cartoon, *Pocahontas* is accepted by consumers is far more important than whether an individual cartoonist is recognized. The corporation's profit realized through the "relationship of works of art to the marketplace" is key to the livelihood of industry. Therefore, the focus of copyright law rests with protection of the product and thus, corporate profit, rather than with protection of the creative and original author, a concern in education, borne out by academic researchers and educators' passion for attribution.

Unfortunately, laws that support this framework extend to an educational setting where a creative work seldom makes much if any profit, a setting in which creative work most often depends on other work for its existence, a setting where contributing authors are assiduously recognized through documentation and citation.[33] The law neither recognizes, protects, nor encourages the academic manipulation of or collaboration with copyrighted works, especially within a digital environment because allowing academic players to "borrow" copyrighted material may erode potential profit—the prime motivation for creativity implied by Article 1, Section 8 of the United States Constitution. Price and Pollack question the efficiency of a system that assumes that all authors' chief motivation for creativity is direct profit potential and they argue for a copyright system that accepts the innate collaborative nature of creativity asking, "[H]ow does one calibrate a legal structure so as to provide adequate incentives for creativity without, at the same time, discouraging the inventive scholarship that comes from the exploitation of existing ideas?" (452). Price and

[33] I am not referring to patented creative work here. I refer only to copyrighted work, which is the focus of my extended argument and research. Indeed patented works do provide significant profit for universities. For example, in January of 1999, Kenneth Campbell reported in *MIT Tech Talk* (an online journal) that university-owned patents provide 246,000 jobs and $29 billion in revenue to educational institutions.

Pollack seem to be suggesting the availability of these "existing ideas," accessible through a free public domain or the educational fair use exemption is just as important an incentive to academic creativity as profit is.

Unfortunately, DMCA regulations are antithetical and even detrimental to the academic need for a legal framework that supports the "inventive scholarship" of collaboration with existing digital work. Legal scholar, Lawrence Lessig describes the collaborative creativity that could be lost through current overregulation of the digital environment:

> [N]ow we have the potential to expand the reach of this creativity to an extraordinary range of culture and commerce. Technology could enable a whole generation to *create*—remixed films, new forms of music, digital art, a new kind of storytelling, writing, a new technology for poetry, criticism, political activism—and then, through the infrastructure of the Internet, *share* that creativity with others. (9)

And all the creative activities that Lessig describes above are also academic activities.

A digital environment that promotes individual and collaborative creativity also must include a reliable fair use provision and a large and vibrant traditional and digital public domain. In protecting corporate concerns for profit potential, the DMCA undermines both concepts and undermines the interests of educators and students.

Fair Use

In her book, *Digital Copyright*, law professor, Jessica Litman attempts to shed light on the complexities the concept of fair use as it plays out in digital law (83-84). Traditional (as opposed to digital) copyright law provided the context for the creation of the fair use provision, so that non-profit organizations like universities and libraries could access work easily and cheaply. However, fair use was also applied in situations where one could

reasonably assume that permission to use the work would be given—as for parody or criticism. This is the area in which fair use has been severely undermined.[34] Litman explains that argument offered by those who object to "implied assent" in the digital realm argue is that it is wrong and even unnecessary to make such an assumption (84). She explains why: "In its most extreme form, this argument suggests that fair use itself is an archaic privilege with little application to the digital world: where technology permits automatic licensing, legal fictions based on "implied assent" become unnecessary" (84). Litman goes on to warn that rejection of "implied assent" as unnecessary because of technological capabilities opens the door to even stricter control. In other words a software owner can put increasingly more efficient circumvention devices into play. A key provision of the DMCA, the anti-circumvention provision, makes few allowances for educational and other non-profit uses.

Lawrence Lessig, points to a logical inconsistency between the traditional guarantees of copyright law and the DMCA's current regulations and attitude toward fair use and the DMCA's anti-circumvention provision. The basis of his argument is that "fair use of copyrighted works is understood to be constitutionally required" as supported by traditional copyright legislation (188). In his book, *The Future of Ideas*, he explains:

> If copyright law must protect fair use—meaning the law cannot protect copyrighted material without leaving space for fair use—then laws protecting [anti-circumvention] code protecting copyrighted material should also leave room for fair use. You can't do indirectly (protect fair-use-denying-code

[34] Although digital copyright law weakens fair use for parody and criticism, the erosion of "fair use" for parody may have begun as early as the early 1990's in the case of *Acuff-Rose Music v. Campbell* In that case, an Appeals Court decided that 2 Live Crew's rap version of "Oh, Pretty Woman," a Roy Orbison/William Dees song, would adversely affect the market for the original song even though All lyrics of the original song were changed except the first line. However, the Supreme Court overturned that decision "in language that reaffirmed the value of critique" (773).

> protecting copyright) what you can't do directly (protect copyright without protecting fair use). (188)

The anti-circumvention provision of the DMCA prevents any entity—profit or non-profit—from navigating around controls without risking criminal prosecution. Additionally, the DMCA's support of anti-circumvention code devices might actually encourage the emplacement of more anti-circumvention devices considering the potential profit in charging gatekeeper's fees. A current and real example of increased code protection is illustrated by the trend of online journals like *The New York Times* and *Salon.com* to become subscription sites. Many sites, like the online version of the *Chicago Tribune,* began as an almost free site; then they slowly evolved into protected sites. The sites begin code protecting archived materials and finally the periodicals emerge as a total content subscription service (with the exceptions of a few short articles and marketing blurbs).

The Public Domain

According to legal scholars, Litman, Lessig, and Benkler, the anti-circumvention provision of the DMCA not only undermines fair use, but also directly diminishes work in the digital public domain by allowing and even encouraging controls that can effectively lock up any work. Suppose, for example, for educational purposes, I want access for my students to "Huckleberry Finn" a work that entered the public domain years ago. Then suppose that the *Gutenberg Project* decides to put circumvention protection on the site containing the work. Without first gaining permission from the website owner, neither my students nor I can through any means circumvent the code that protects the site without committing a criminal offense according to the DMCA. Therefore, even though I should have an educational exemption through the fair use provision and even though "Huckleberry Finn" is

available in the public domain, I would not legally be able to access the work on the Gutenberg site without permission or without paying entrance to the site.[35]

Despite my predicament as an educator, some would argue that the United States Constitution provides copyrights (like the anti-circumvention provision) to authors so that they will profit from control of their work. This rationale says that only if authors can profit, will they be motivated to create. Like Price and Pollack, Lawrence Lessig disputes this position, saying that most innovations on the Net occurred in a non-regulated environment and a free public domain. He says that in the midst of this creative environment, legal and corporate forces have taken over and threaten to constrain that creativity.

> [C]hanges in the architecture of the Internet—both legal and technical—are sapping the Internet of this power. Fueled by a bias in favor of control, pushed by those whose financial interests favor control, our social and political institutions are ratifying changes in the Internet that will reestablish control and, in turn, reduce innovation on the Internet and in society generally (15).

Yochai Benkler proposes that a fair system of copyright laws would benefit not only those whose financial interests are at stake, but also such a position would benefit those whose creative activity doesn't result in profit, like educators and their students. Benkler's notion of a fair copyright system correlates with Herbert Morris' equal distribution of burdens and benefits, discussed in Chapter 1. Benkler says that such a system is tied to the "core values of democracy and autonomy that underlie the American commitment to freedom of speech and a free press" ("Property, Commons, and the First Amendment" 3). One could also add—a commitment to academic freedom. Benkler suggests that in order to build and maintain a body of copyright law that benefits all stakeholders,

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[35] Project Gutenberg is not an anti-circumvention protected site. It currently houses over 6000 free ebooks. For information on the interesting history of this site, access the URL: http://promo.net/pg/history.html

> [W]e must build a core common infrastructure that will allow commercial and noncommercial, professional and amateur, commodified and noncommodified, mainstream and fringe to interact in an environment that allows all to flourish and is biased in favor of none. ("Property, Commons and the First Amendment" 3)

To build this infrastructure, it is necessary to maintain public domain for free creative play in each of three layers: the content layer, the code layer, and the physical layer.

The next chapter (Chapter 3) begins with a discussion and analysis of academic discourse preceding the passage of the DMCA, a description of my DMCA artifacts, and explanation of the framework I employ for analyzing the Digital Millennium Copyright Act.

Chapter 3

DOCUMENTS AND METHODS

This chapter accomplishes two tasks: 1) it describes my rationale for keying in on specific burdens and benefits; and 2) it explains the methodology I employ for analyzing my DMCA artifacts for the purpose of addressing my research question. The findings of the DMCA analysis appear in Chapter 4.

Benefits and Burdens as Identified by Academic Organizations in Pre Passage Discourse

To answer my primary research question—*How has recent copyright legislation shifted the balance of intellectual property benefits and burdens for academic authors and audiences?*—I first identify those benefits and burdens that affect and concern educators and students in the digital copyright environment. Representative online documents constituting academic reporting, debate and discussion preceding the DMCA's passage in 1998 help unpack relevant academic issues pertaining to evolving digital copyright legislation. The documents selected for this study were published on academic organizations' websites and in the organizations' respective online periodicals. The intended audiences were the organizations' membership, as well as House of Representatives and Senate congresspersons.

The Representative Organizations

The organizations representing authors of discursive documents occurring in advance of the passage of the DMCA are the American Association of University Professors (AAUP),

the Conference on College Composition and Communication (CCCC), and the National Council of Teachers of English (NCTE). The AAUP was chosen because it offers viewpoints representative of viewpoints in a variety of academic disciplines. I chose the NCTE and its subgroup CCCC for two reasons. First, they are specific to my own field of English and second, a surfeit of material concerning impending copyright legislation was available from both organizations. Both organizations maintain web pages devoted to term extension and digital copyright news and discussion; CCCC and NCTE online journal articles and position statements were filled with news of the proposed legislation for several years preceding its passage.

The Academic Documents

The documents chosen to establish academic concerns or "burdens" from the organizations described above are:

- A November 1995 letter to the Judiciary Committee of the U.S. Senate expressing concern over the burdens imposed on writing teachers by the proposed digital copyright bill (an early version of the DMCA).

- A similar letter by CCCC members in May 1996 to the House Committee on the Judiciary about the same bill.

- An NCTE *Council Chronicle* online article titled, "CCCC, NCTE Join Opposition to Copyright Legislation: CCCC Voices Concerns to Senate Judiciary Committee."

- Another NCTE online article titled, "Copyright Bills Seek to Maintain Balance."

- An undated AAUP position statement, titled "Statement on Copyright," addressing digital technologies in the classroom.

- An AAUP memo to the AAUP Government Relations Network from its associate director reporting on the passage of the DMCA.

- Another AAUP memo from the associate director to AAUP Government Relations expressing concerns about a digital database provision.

These documents were selected because they express concerns common to many disciplines, because they exemplify academic concerns expressed repeatedly in the many educational documents I consulted during my research process, and also because the documents specifically and clearly outline those concerns. Additionally, the documents represent a variety of genres framing opposition to the DMCA, effectively underscoring the ubiquity and thus, the significance of pre-passage academic discourse in establishing a shifting of the balance of benefits and burdens. These documents provide a natural touchstone for the analysis and discovery of identified concerns in the DMCA.

The Organizational Discourse

In this section I weave rhetorical analysis with history. The reason for including history is that the context is important as the DMCA evolves and moves through the legislative process over the course of several years, simultaneously prompting new academic burdens to surface at each stage. Therefore, I have arranged my discussion of the documents below in chronological order.

The CCCC's intellectual property committee, CCCC-IP, meet at the CCCC yearly conference in the Caucus on Intellectual Property and Composition Studies. In November of 1995, six members of the Caucus—including Andrea Lunsford, James Porter, Laura Gurak, John Logie, Lisa Toner, and Susan West—drafted a letter to the Judiciary Committee of the United States Senate. The letter addressed the proposed intellectual property bill that would evolve as the DMCA in 1998. The first paragraph of the letter describes the 1995 bill as "hostile to the interests of writing teachers and students" (Lunsford et al. "November 7, 1995"), thereby establishing an academic position antithetical to the bill's provisions early in the letter. The caucus members go on to ask Senate Judiciary Committee to "hold comprehensive hearings on S.1284 [the title of the bill at this point] with the aim of thoroughly scrutinizing the full range of implications of the bill and of making appropriate amendments to ensure the bill supports a fair and just copyright policy we can all live with."[36] This statement conveys a concern over the lack of input into the DMCA from educators and a sense that the legislation is inherently detrimental to academic concerns. The caucus letter is relevant to my research in that the caucus establishes those "implications" for academia very explicitly.

To contextualize and support their objections to the bill, Lunsford et al. describe the increasing importance of the "electronic network" to the composition classroom for research, conferencing, communicating, and publishing. Three very specific objections are delineated. I have retained the caucus's system of number and letter outlining and have italicized my own annotations.

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[36] S.1284 is simply the Senate's designation for the digital copyright bill, which at that time was called NII Copyright protection Act of 1995. NII is an acronym for the National Information Infrastructure. This bill metamorphosed into the 1998 Digital Millennium Copyright Act.

1. "[The bill] enforces an even more restrictive level of intrusion [than traditional copyright law] into people's use of digital information . . . . The legislation is an attempt to restrict to the point of near elimination any sense of educational Fair Use as it might apply to computer-generated materials." *This segment uses strong and emotionally loaded words like* enforces, restrictive, intrusion, *and* near elimination *to give a sense of the oppressiveness of the proposed legislations and to convey to Congress the necessity to revise what the authors see as an anti-education bill. It also establishes the erosion of Fair Use as a primary academic concern.*

2. "Writing teachers' views were never considered . . . .The philosophy undergirding the legislation serves the commercial interests of larger publishers, recording companies, and major motion picture producers at the expense of educational interests." *This point establishes the privileging of corporate interests over the interests of educators and their students in United States copyright law and suggests dismay over the Congress's neglect in acknowledging the importance of academia as a stakeholder.*

3. "S. 1284 [a version of the DMCA] would have troubling implications for writing instruction."

    a) "[A]lthough students would continue to be allowed to browse print resources in a library, they could not safely browse materials on the Internet without risking copyright violation." *This point refers to the "in progress" anti-circumvention provision. Students would not be able to view password or code protected copyrighted works without obtaining permission or licenses or else, paying*

royalties to the owner of those works. The idea of a law that would transform student researchers into criminals is an emotional appeal that emphasizes the importance of access to educators and students.

b) "The legislation would make universities, as service providers, liable for students' copyright infringements. Rather than face the level of liability this entails, universities will severely limit teachers' uses of Internet resources. The legislation would thus discourage the growth of new electronic educational innovations and encourage increased invasion of privacy by service providers." *This point was maintained fairly intact in the DMCA, although the university service providers are no longer as strictly liable as they were in this version. Now university OSP's have a list of criteria and actions they must satisfy, including warning infringers, reporting infringers, and disseminating copyright infringement information in order to avoid prosecution for infringement of their user/customers. Nonetheless, this point establishes University OSP regulation as a concern for educators. Again, the idea that the law might curtail an educator's access to and ability to use certain teaching materials is an emotional appeal that suggests the academic importance of a fairly regulated university OSP.*

c) "This legislation would limit the kinds of writing that will occur on the computer networks. It will have a chilling effect on interactive hypertext designs and will discourage the interactive uses of the Internet that are currently being developed. If service providers are liable for infringing activity, . . . interactive, contributory forms of network activity will be viewed as too risky." *This point refers to the*

> *DMCA provision that forbids any alteration or manipulation of protected digital works—another anti-circumvention prohibition and the CMI anti-alteration provision that prohibits tampering with copyright management information. The words,* "chilling effect," *suggest that the proposed legislation could put an immediate end to Internet interaction implying that teaching and learning would be seriously and negatively affected.*

The Senate Judiciary letter establishes the significance of fair use very specifically in the first point above. However, fair use is also alluded to in points 3a and 3c because, as explained in Chapter 1, both the anti-circumvention and the anti-alteration provisions prevent educational or non-profit use of code-protected digital works. Although the public domain is not overtly referred to, we can assume that the public domain could reasonably be fenced in by code or password, thus preventing access by anyone, including educators and their students.

The concerns (i.e., erosion of the fair use provision, shrinkage of the public domain, anti-circumvention, and anti-alteration) expressed in the Senate Judiciary letter are repeated throughout CCCC documents. Additionally, concern over regulation of university OSP's becomes increasingly significant as DMCA versions evolve. In a similar CCCC letter to the House Committee on the Judiciary from May 15, 1996, caucus members complain that the bill's "overly restrictive language on transmission and service provider liability threaten to drastically eliminate traditional 'fair use' concepts crucial to education—concepts that have long been held to be a fundamental aspect of copyright law" (Gurak, Johnson-Eilola, and Logie). Here, Gurak, Johnson-Eilola, and Logie define and emphasize fair use as an educational right in intellectual property law.

In 1996, the CCCC-IP website reprinted an April 1996 NCTE *Council Chronicle* article to reinforce the IP committee's opposition to the proposed bill. The title reads "CCCC, NCTE Join Opposition to Copyright Legislation: CCCC Voices Concerns to Senate Judiciary Committee." At this juncture, the CCCC Intellectual Property Caucus had been in existence for two years and, according to Andrea Lunsford and Susan West, an early draft of the DMCA had "started on a remarkably fast track through Congress after its introduction in late September" ("Intellectual Property" 384). The first paragraph of the article points out the growing academic momentum against the bill.

> A copyright revision bill that gives greater weight to proprietary rights than to public access to information is making its way through Congress. NCTE and the Conference on College Composition and Communication have joined with 24 other education, library, technology, and civil liberties groups—including the American Council of Learned Societies, the American Library Association, and the National Humanities Alliance—in opposing the current bill, in an alliance called the Digital Future Coalition (DFC). (Flanagan)

The article refers to the Senate Judiciary letter examined above. Anna Flanagan, the author and CCCC member, extensively quotes Peter Jaszi, Washington College of Law professor and one of the founders of the Digital Future Coalition mentioned above. Her choice of Jaszi says that law professors, as well as writing teachers are concerned about this bill—thus, strengthening her argument that the bill is harmful to academia in general. In the article, Jaszi expresses concern over the bill's implied regulation of any digital transmission of copyrighted work. His concern emanates from consideration of the extensive communication done on university listserves, chat rooms, bulletin boards, and other "electronic discursive spaces"—all facilitated by the university service provider. "So the issue of whether or not the person who maintains the electronic space is going to be deemed a violator of copyright when someone uses that

space to make an unauthorized transmission of protected information—is one with which we ought to be very concerned." Jaszi expresses worry that the anti-circumvention provision will "make it easier for those who control access to information that is currently in the public domain to lock that information up electronically and discriminate on the basis of willingness to pay." He repeats the CCCC themes of restricted access to public domain and the regulation of the university service provider. Therefore, it would be logical for the reader to assume also that a strong fair use provision for educators would help alleviate the problem, especially in cases where the educator may be the one maintaining an "electronic discursive space" on which someone commits copyright infringement. Again the idea of teachers and students as criminals underscores the seriousness of an eroded fair use provision.

Anna Flanagan again reports on the looming digital copyright bill (in the fourth draft) in a February 1998 NCTE online article titled, "Copyright Bills Seek to Maintain Balance." The article urges educators to contact their House and Senate representatives to protest such issues as the regulation of university service providers and of transmission of protected works. Additionally, the article protests the bill's lack of provision for fair use. This plea to all educators to become involved in the struggle implies the urgency of the matter. Indeed, the DMCA was passed and signed into law in October of that year.

The new theme of distance education surfaces in this piece. Although the bill exempts educators for using protected works in televised distance education, "there is no exemption for distance education conducted via digital networks." This type of information transmission includes the increasingly popular WebCT and ITV instructional delivery systems. The Distance Education section of the DMCA is anomalous, in that although digital transmission is

not exempted, the bill specifically refers to an educational exemption for transmitting some protected work to televised classes. This exemption is presented without mention of fair use. In fact, discussion of fair use or the educational exemption is mostly avoided in the DMCA, another complaint of educators.

The final organizational documents expressing opposition to DMCA regulations come from the AAUP. An undated "Statement on Copyright" found on the AAUP website is important to determining specific academic burdens not only because it underscores CCCC and NCTE concerns, but also because the "Statement" adds new concerns to the list. The "Statement on Copyright" is subtitled to address various copyright provisions as they relate to education.[37] The first header, "Academic Practice" repeats the concern that the distance education exemption not be limited to audio-visual transmission, but that digital copyright legislation should also exempt electronic transmission of copyright materials in course development. Another header, "New Instructional Technologies," is concerned with copyrights of faculty in an environment where the corporate university has supplied technological "delivery systems" like videotaping, editing, and by implication, other electronic hardware, like computers. In this document, the AAUP worries that, in a work for hire situation, the university may be considered by law to be a joint author. Even though this is a concern that harkens back to the 1976 work for hire provision, it does point to a legitimate issue for a digital environment—an issue that is not addressed in the DMCA. This concern reveals another burden that emerges because of its absence rather than its presence.

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[37] Although this document refers to "works made for hire," "contractual transfers of copyright," and "joint works," these issues will not be discussed here because they do not address the digital environment.

The language in the "Statement" is relatively neutral, unlike language in the CCCC and NCTE documents, mainly because the document is a position statement, a genre that by convention is not emotional. However, genre does not fully explain the lack of emotional appeal because the style in this document, as well as all the AAUP documents analyzed here suggests an overall organizational writing style more formal than that of CCCC and NCTE.

Another concern that arises in other AAUP documents is the potential of digital database regulation to interfere with academic access. For example, memo to the AAUP Government Relations Network from Mark F. Smith, Associate Director of Government Relations reports on the then recent passage of the Digital Millennium Copyright Act and the 1998 20-year Copyright Term Extension Act. The memo refers to an earlier version of the DMCA that "would have created a new form of intellectual property protection for databases and established penalties for the misappropriations of collections of information created with substantial investments of time and money." Imagine, for example, a database containing links to all articles on 19th century American authors. This type of electronic database could and has since been deemed illegal by the earlier version. Smith goes on to report that the provision was struck from the DMCA after AAUP sent a letter to digital copyright committee members. This memo is positive in that it expresses satisfaction at the database change.

Almost exactly one year later on October 28, 1999, Smith again memoed the AAUP Government Relations Network with an "alert" about a position reversal of the copyright committee. He reports that:

> The government relations Office has learned that the House of Representatives may take up H.R. 354, the Collections of Information Antipiracy Act, next

> week (November 1—November 5). This bill would extend copyright protection to databases and collections of facts, and would create civil and criminal penalties for "mis-appropriation" of data from those databases. ("Legislative Alert")

The database bill still remains in the proposal stage, but database litigation has flourished.[38]

The CCCC, NCTE, and AAUP documents implicitly and overtly suggest several key concerns for digital copyright legislation:

- the anti-circumvention provision
- the anti-alteration provision
- the regulation of university OSP's, work for hire in a digital environment
- and the regulation of databases and digital distance education.

Underpinning all of these concerns is the reduced accessibility to the public domain and the lack of the fair use exemption in educational venues.[39] What these academic concerns suggest is that any analysis must be able to examine and identify regulation of content, as well as electronic code and even the hardware itself (as suggested by regulation of the university OSP's).

Although these organizations address regulations in several earlier versions of the DMCA, for the purpose of my analysis, I examine only the last version of this artifact. The next section

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[38] The following two court opinions exemplify court opinions that upheld regulation of electronic databases:
- *eBay v. Bidder's Edge* 100 F. Supp. 2d 1058 (N.D. Cal. 2000)
- *Los Angeles Times v. Free Republic*, No. CV 98-7840-MMM (AJWx) (C.D. Cal. 1999)

[39] Mitigating these two issues is 1.) the passage of the term extension act, which erodes the public domain and also, 2.) the Kinko's defeat in Basic Books v. Kinko's, which effectively and further undermines the educational exemption.

describes that version plus additional materials. Following a brief discussion of my artifacts is a description of the methodology that underpins my analysis.

The Digital Millennium Copyright Act

The DMCA analyzed in this paper is actually made up of several components including the Final Joint Version of the DMCA, Appendix V of the DMCA, H.R. 2215 and the Copyright Office Summary.

The Final Joint Version of the DMCA

Description. The core of my analysis in the next chapter is a full-text version of the DMCA. This version, available online at the Copyright Office website, is a legal document, 101 pages in length in the pdf format. The particular version I examine here is the sixth draft. This draft, also called the Final Joint Version, was passed by Congress and signed into law by President Clinton in October 1998, and from there was integrated into Title 17 of the United States Code.[40] The Final Joint Version of the DMCA is comprised of five sections called "Titles." The main points of each title are offered below:

1. Title I, the "WIPO Treaty Implementation," describes the terms of an international agreement concerning reciprocal intellectual property rights among WIPO members (World Intellectual Property Organization). The two main provisions of the DMCA explained are prohibition of circumvention of access controls (anti-circumvention) and the prohibition against tampering with copyright management information (CMI or repair and specifically refers to academic research.

[40] The 106th Congress' working title of the Final Joint version is H.R. 2281.

2. Title II regulates online service providers and specifically refers to the university OSP's in prescribing both regulation and punishment for infringement.

3. Title III regulates management of computer maintenance and repair.

4. Title IV contains six "miscellaneous provisions" concerning the "functions of the Copyright Office, distance education, the exceptions in the Copyright Act for libraries and for making ephemeral recordings,[41] 'webcasting'[42] of sound recordings on the Internet, and the applicability of collective bargaining agreement obligations in the case of transfers of rights in motion pictures."

5. Title V, the "Vessel Hull Design Protection Act," provides protection for boat hull and other distinctive designs.

Rationale for Document Choice. The Final Joint Version was chosen because it was the last and most complete of the six versions. The fifth version, the Conference Report, is essentially identical in content, but because it emerged with extensive suggestions for a final Congressional vote from a joint House and Senate committee, the document's organization was quite different. It began with sixty-two pages of suggested changes and ended with thirty-two pages of an intact fourth version, which provided a challenge to navigating the document for the purpose of analysis. The Final Joint Version includes the integrated suggestions in chronological order according to titles, making it much easier to read and to locate information.

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[41] Ephemeral recordings refer to motion pictures and audio-visual works.

[42] Broadcasting ephemeral recordings (See footnote 27) over the Internet.

Appendix V of the DMCA

Description. Appendix V of the DMCA, titled "Additional Provisions of the Digital Millennium Copyright Act," contains an order to the Register of Copyrights to report back to Congress with recommendations for amending distance education regulations after consulting with "representatives of copyright owners, nonprofit educational institutions, and non profit libraries and archives" and after considering certain elements prescribed by Congress. This appendix amends Title IV of the DMCA under Section 403, titled "Limitations on Exclusive Rights; Distance Education."

Rationale for Document Choice. A decision on regulating distance education (Title IV) was postponed by Congress for six months after the DMCA passage during which time the Register of Copyrights was directed by Congress to research a list of eight elements the Register must consider, Appendix V provides a lens through which to view significant legislative goals as they correlate with academic issues concerning distance education. These legislative goals are eventually reflected in the final revisions to Title IV prescribed in H.R. 2215.

H.R. 2215

Description. H.R. 2215, "The Technology, Education, and Copyright Harmonization Act," amends and adds to the DMCA. It is four pages long and addresses educational exemptions with regard to digital performances and displays in "mediated instructional activities transmitted via digital networks"—or distance education.

Rationale for Document Choice. H.R. 2215 responds to the Congressional order outlined in Appendix V, describing in detail not only the exemptions and regulations for distance education, but also what an exempt classroom should look like under DMCA regulations. This document was necessary to a more thorough analysis of the layers of regulation in the distance education environment.

Copyright Office Summary

Description. The Copyright Office summary is an eighteen-page document that summarizes the main concepts embedded in each of the five Titles. The language is clear and free of legal jargon.

Rationale for Document Choice. Because I am not legally trained, this document was invaluable to me for clarifying, summarizing, and locating concepts written in the sometimes-confusing legal language of the full-text Final Joint Version. Because of its "reader-friendliness," I have also included the Summary in an appendix to this paper for the convenience of my readers.

All in all, the DMCA is a legal document filled with regulations that could impede teaching, research, and writing in an academic setting. To identify significant changing copyright regulations as they affect the balance of burdens and benefits, I employ Benkler's Theory of Layers. As the academic documents above suggest, regulation that affects educators and students occurs not only at the textual level, but also at the physical (i.e., OSP equipment) and code (i.e., anti-circumvention) levels. Benkler's framework for analysis is suitable for examining and uncovering regulation at all levels. The remainder of this chapter offers a more

complete rationale for Yochai Benkler's framework as the most suitable approach for examination of the DMCA and provides a more detailed description of Benkler's framework as applied to analysis of DMCA regulation.

Benkler's Theory of Layers

> *[C]ommunication infrastructure regulation should be focused on accentuating those attributes of digital information technology that make it a potential vehicle for achieving a broad distribution of access to, and participation in, the social processes of knowledge production ("Communications Infrastructure" 183-184)*
>
> *~Yochai Benkler*

To answer my research question, my examination of DMCA documents must unpack digital copyright regulation affecting educators and their students, as well as any regulation favoring corporate groups over educators and students. Yochai Benkler disagrees with any such privileging, arguing above that a goal for regulation must be an equal distribution of access in digital communication. As discussed in Chapter 1, Article 1 Section 8 of the United States Constitution implies that in establishing copyright law, Congress must ensure an equal distribution of benefits to both author/owners and to user/audiences. These benefits include the equal "access to, and participation in, the social processes of knowledge production" in a digital environment as emphasized by Benkler above (184).

The most effective framework for analysis is one that allows me to evaluate the document closely, by segments, as well as holistically, to uncover any specific undermining of academic access, as well as any overall erosion of this access. Furthermore, because the CCCC, NCTE, and AAUP documents suggest that burdensome regulation occurs in the textual

content, in computer code and even in the equipment belonging to university Online service providers, the DMCA analysis must work within a flexible framework that allows examination of regulation of access at more than just the content or textual level.

Professor Yochai Benkler's communication theory of layers provides an effective approach to this type of multi-leveled analysis because Benkler's framework can be used to address not only the content layer of digital communication, but also the code layer and the actual physical environment of computers and wires. In his article, "From Consumers to Users: Shifting the Deeper Structures of Regulation Toward Sustainable Commons and User Access," Benkler explains why regulation at all three layers may have serious future implications in the digitally networked environment:

> As the digitally networked environment matures, regulatory choices abound that implicate whether the network will be one of peer users or one of active producers who serve a menu of prepackaged information goods to consumers whose role is limited to selecting from this menu. These choices occur at all levels of the information environment: the physical infrastructure layer—wires, cable, radio frequency spectrum—the logical infrastructure layer—software [and code]—and the content layer [images and text]. 562

Above, Benkler expresses concern that because of increasing regulation, the digital environment will evolve to a consumer-passive, from the now consumer-active environment. In this scenario, instead of being able to choose and manipulate information, consumers will be offered a limited menu of information, as is already the case with television and radio. The ability to manipulate information is especially important to academia because an educational environment, by tradition and definition, is one where knowledge is created and manipulated *ad infinitum*. An environment that impedes access to digital text, code, and hardware, also impedes knowledge creation.

In establishing a baseline from which to identify increasing control of digital access, Lawrence Lessig explains that, in the 70's and 80's, constraints came not from legal regulations, but rather from the limited number of available computers. In other words, the physical scarcity constrained an otherwise free code and content layer. Lessig describes this early digital environment:

> The physical layer of the "computer-communications architecture was controlled; the very nature of its expense forced users to locate to the machines. Locating the machines in particular places made it easy to control access. The logic [or code layer] of the machine may have been open, but only those with permission were allowed in the "machine room." And finally, while the source code for these machines may not have been controlled (content layer, open), the small number of these machines meant that the value of the open code was limited. Coding, and the creativity realized in coding, was dictated by this architecture that mandated control. (113)

Below, I apply Benkler's theory to the three regulatory layers in the 1970's and 80's digital environment Lessig. Notice that in this early environment, no legislative regulation inhibited access and any layer and that the only control is exerted by those who own the machines.

- Physical Layer (or architecture)—controlled
- Code Layer (or logical layer)—free of regulation, but controlled by limited access to physical layer
- Content Layer (or text and images)—free of regulation, but controlled by limited access to physical layer

A major concern for Benkler, Lessig and other academics is that, unlike the Lessig's early environment described above, the digital public domain under the DMCA is diminishing

due to draconian anti-circumvention regulation. Benkler underscores the societal importance of identifying and sustaining a public commons at all levels of digital communication, arguing that the commons is crucial to innovation and creativity in a digital environment ("From Consumers to Users"). The theory of layers helps identify which level of public commons is at risk. Regulation of the public commons is Benkler's main focus in his theory of layers; however, his approach is also useful for uncovering specific regulation concerning education as well.

Lawrence Lessig appreciates the flexibility of Benkler's theory in its ability to reveal constraints at all three layers, as well as its ability uncover the extent of regulation and/or control in any communication venue—traditional or digital. Lessig illustrates this flexibility as he applies the Benkler's Framework to the following communication environments—Speaker's Corner in London's Hyde Park, Madison Square Garden, the telephone system, and

Table 1 LESSIG'S APPLICATION OF BENKLER'S THEORY OF LAYERS

	Speakers' Corner	*Madison Square Garden*	*Telephone System*	*Cable TV*
Content	Free	Free	Free	Controlled
Code	Free	Free	Controlled	Controlled
Physical	Free	Controlled	Controlled	Controlled

Source: Lawrence Lessig, *The Future of Ideas: the Fate of the Commons in a Connected World.* New York: Random House, 2001, 25.

cable TV (23-24). Under Benkler's framework, designating a layer as "free" means that no regulation prevents access to that layer, nor does the regulation privilege any individual or

group over another. Designating a layer as "controlled" means that the layer is not regulated by law or by individual or organizational control. The early computer environment Lessig describes above illustrates an example of individual or organizational control. In this environment any organization or individual that owned a computer could prevent access by simply saying "no" to a user or by locking the door.

What is important to note here and what reveals itself in my DMCA analysis results in the next chapter is that increasing control appears in more layers as the technology becomes more sophisticated. The Speakers' Corner, the first venue illustrated in Table 1, is a low-tech environment in Hyde Park where anyone can speak on anything to whoever is in the park at the time. Therefore, the content or topic of the speech is unregulated, the language or code is unregulated, and the physical environment is also unregulated. The telephone system adds technology and thus, control increases. Although content is free because a consumer may pass any message over the phone lines, the physical infrastructure and code that allows a message to be passed is owned and controlled by the telephone company. At the far right end of the regulation spectrum is Cable TV. The content or broadcast itself and the code that determines what shows are broadcast, in addition to the cable and wires are all controlled by the cable company. In other words, no choice, other than what channel to watch, is left to the consumer (24-25).

Lessig explains that the digital environment is not as straightforward as the examples in Table 1 might suggest, in that "it mixes freedom with control at different layers" (25), especially at the code and content levels. Additionally, although Benkler's approach effectively identifies layered controls in cyberspace, control of one layer may influence control

at another layer and any analysis must reflect these interactions. For example, the intellectual properties available for download on the Project Gutenberg site are in the public domain. However, if the site owners put password or code protection at the portal of the site, then the public domain works become protected by that code. They are no longer free. So, although the content is technically free, the code is regulated and the regulation prohibits users from accessing the work without paying for and obtaining a license. Moreover, if the computer itself can only be operated by means of a key or a code, we could say that the physical infrastructure is regulated. In the case of a locked up physical infrastructure, neither code nor content are accessible—free or not.

Another complicating aspect to my analysis is determining what DMCA restriction or regulation falls into which layer. For instance: Coded computer language is content, as well as code in that when it is applied to a portal, it is a code that allows or prevents passage to a site, but when someone takes the code apart in an act of reverse engineering, then modifies it in some way, the code can be classified as content or modified text. I was forced to consider how I would treat those regulations that constrain accessibility to more than one layer, as in the Gutenberg example above, and how I would quantify or describe the amount of regulation. As to the first concern, I have chosen to describe the effects as primary or secondary and to explain the effect of one regulation of one layer on other layers in my analysis. A "primary" effect assignation means that a particular was targeted for regulation by the DMCA. Other layers affected by the "primary" effect layer are designated as "secondary" effect layers. As for my concern about quantifying the results of my analysis of the DMCA, I have added my own interpretation of the impact on education the 70's and 80's baseline that Lawrence Lessig

describes above, factoring in the burdens identified in my non-legal documents. Another quantification issue is how to measure the shift in balance of burdens and benefits provoked by the DMCA. Because the shift in the balance of burdens and benefits is an abstract concept, it is also unmeasurable, so I will simply offer my qualitative assessment, based on the analysis, to determine whether there is a shift.

My findings in Chapter 4 are organized as the DMCA itself is organized in that I identify key regulations and restrictions identified as burdensome by my non-legal document analysis beginning with Title I and ending with Title V in each layer.[43] I begin with the content layer. Areas where regulations and restrictions indicate increased burdens or increased benefits to educators and their students are then categorized into the physical infrastructure, code, and or content layers according to Yochai Benkler's framework. Some concepts fit into more than one layer and these are noted and discussed. I conclude the chapter with an overview of control that emerges from the analysis at all levels.

[43] Appendix V actually appears at the end of the DMCA and H.R. 2215 was actually passed a year after the passage of the DMCA, but I have included both in my Title IV analysis because Appendix V and H.R. 2215 address the same topic that appear in that title. That topic is Distance Education.

CHAPTER 4

FINDINGS OF DMCA ANALYSIS

This chapter is organized according to Yochai Benkler's layers of control in digital legislation. [44] The subtitled layers—content, code, and physical infrastructure—also serve as units of analysis for determining a shift in benefits and burdens in DMCA Titles I through V. Sonja K. Foss identifies the process of deriving methods from theories or concepts as "generative criticism.' In her book, *Rhetorical Criticism: Exploration and Practice*, she briefly explains the function of the units of analysis in generative criticism:

> On of the most important steps in the process of rhetorical criticism is the critic's selection of a unit of analysis to answer the research question. This is the unit the critic uses as the vehicle or lens for examining the artifact, and it directs the critic to focus on some aspects of the artifact rather than others. (483)

She explains that the units of analysis for research can be drawn from a particular concept or theory or from the research question itself. Because my research question asks *How* recent copyright legislation has shifted the balance, I needed a unit of analysis that would identify areas of concern for educators and students in the DMCA. Benkler's communication theory of

[44] Benkler describes these layers in several of his articles. Among them are "Communications Infrastructure Regulation and the Distribution of Control over Content," "From Consumers to Users: Shifting the Deeper Structures of Regulation Toward a Sustainable Commons and User Access," and "Property, Commons, and the First Amendment: Towards a Core Common Infrastructure." Complete citations can be found at the end of this paper in the Works Cited pages.

layers provides my units of analysis because his framework deals with locations of copyright control, which helps me answer the *How*.

For the purposes of this analysis the following terms will be used interchangeably to signify the units of analysis:

- Content layer and textual layer. Both of these terms mean what you see on the screen of a computer. "Textual" indicates writing symbols and "content" refers to all representations that appear on the screen, including text and images.

- Code layer and logical layer. Both terms refer to the binary code that tells the computer to operate in a certain way, that makes software work, and that allows or prevents users from using software or accessing certain material

- Physical infrastructure layer and architecture. This layer includes all hardware, including wire, cables, computer components, discs, cd's, and so on.

As discussed in the previous chapter, some regulation directly regulates a particular layer, but may also have the secondary effect on another layer or layers for educators and their students. Therefore, each regulation that shifts the balance of burdens toward faculty and students will be labeled as either *primary* or *secondary* effects in a specific layer. Primary effects mean that a particular regulation was intended to affect a certain layer (textual, code, or physical) and thus, the regulation primarily affects academia at a certain layer. Secondary effects mean that, as a result of the primary effects at a certain level, other levels are also affected, even though the explicit goal of the DMCA was not to control access at the secondary

effects level. An example would be Lessig's early computer environment, in which whoever had ownership or control of the physical computer itself controlled the physical layer, so primary effects were at the physical layer. However, because a user could be prevented from even turning on the computer, the user is also prevented from accessing the code and the textual level. Therefore "secondary" effects are felt at those two additional levels.

Control in the Content or Textual Layer

For the purposes of this dissertation, the Content or Textual layer in the digital realm refers to any material that is moved from place to place electronically. In his book *The Future of Ideas: the Fate of the Commons in the Connected World*, Lawrence Lessig minimally describes the content layer as "the actual stuff that gets said or transmitted across [the electronic] wires. Here we include digital images, texts, on-line movies, and the like" (23). More simply put, this layer is comprised of anything we can see on the computer screen.

Title I

Title I's purpose is the implementation of treaties in correlation with WIPO organizational law—copyright legislation agreed upon by a number of industrialized countries. The goal of these treaties is to harmonize U.S. intellectual property law with that of the WIPO so that United States protected intellectual property is equally protected in WIPO member countries and vice versa. The DMCA's new digital regulations in Title I were eventually adopted and integrated into the United States legal code, a body of federal legal guidelines.

Primary Effects in Content Layer

No direct control of the Content or Textual Layer is discernible. Title I provisions primarily affect the Code Layer.

Secondary Effects in Content Layer

One of the two provisions in this title secondarily affects content because it denies user access to content by preventing circumvention of the code that protects content.[45] This content is not accessible via the educational exemption.

More specifically, the circumvention provision in Section 1201, in prohibiting circumvention of code, secondarily restricts access to all digital content or text on the other side of a digitally-coded portal. Access is even denied to work in the public domain on the other side of this portal. No educational fair exemption neutralizes the secondary effects of the anti-circumvention provision. In the DMCA's only reference to fair use, the Copyright Office Summary explains what happens at this intersection of fair use and the anti-circumvention provision as follows:

> Since copying of a work may be a fair use under appropriate circumstances, section 1201 does not prohibit the act of circumventing a technological measure that prevents copying. By contrast, since the fair use doctrine is not a defense to the act of gaining unauthorized access to a work, the act of circumventing a technological measure in order to gain access is prohibited. (4)

Gaining access to code protected work may require a re-authorship or manipulation of the code that prevents certain people from entering, activity sometimes used in research of

[45] The treaties described in Title I includes two main regulatory provisions: 1.) Prohibition against circumvention of computer access code, which is referred to in this paper as the anti-circumvention provision. 2.) Prohibition against altering or tampering with copyright management information (CMI).

computer codes (see Felten case described in Chapter One). Title I prohibits this type of re-authorship. Because computer code is a form of binary text, the anti-circumvention provision prevents access to text for the purpose of re-authoring its message from "You cannot enter here at this time" to "You can enter here now."

Title I (by means of its anti-circumvention provision) prevents access to both coded (and binary) and traditional text, with no allowance for fair use for educational purposes nor respect to whether or not the intellectual property is in the public domain. Therefore, impeded access to textual material marks a definite shift in burdens for academic authors and audiences, and a shift in benefits toward copyright owners.

Title II

Title II's purpose is the regulation of Online Service Providers (OSP's). Although most of this title is dedicated to the regulation of commercial service providers, a short, but very specific section discusses university OSP's in Subsection 1A (1A through C and 2).

Primary Effects in Content Layer

No primary effects exist at this level. Only secondary effects on educators and students exist at this level because the regulation primarily affects physical infrastructure layer,

Secondary Effects in Content Layer

Although this Title II primarily affects the OSP-owned physical infrastructure, it also increases regulatory control of content layer by mandating and describing punishment for

university OSP users who do not abide by the anti-circumvention and anti-alteration regulations, regulations that secondarily affect the content layer (referred to in Title I above).

The content layer is affected by Title II in this way: Suppose an educator copy and pasted an article from an online code-protected academic journal article; then photocopied it for her students without getting permission from the author/owner of that article.[46] Photocopying the code-protected article without permission would constitute infringement. If the infringement were reported, the teacher may be subject to denial of access to the university OSP and may also be burdened with criminal charges under DMCA regulations. The punishment mandated under Title II regulates access to the physical infrastructure of the OSP, by threatening denial of access; however, denial of access and even the threat of denial of access to the OSP's physical system, secondarily also impedes the teacher's access to code-protected content.

Title III

Also called the "Computer Maintenance Competition Assurance Act," this is the shortest of the five titles. Section 302 of this title provides very narrow exemptions for copying copyright protected intellectual property and for the circumventing of code protection for the purpose of repair or maintenance.

Primary Effects in Content Layer

No primary effects exist at this level. Title III primarily affects the physical infrastructure layer.

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[46] In some cases, the publisher may own copyrights.

Secondary Effects in Content Layer.

No secondary effects exist at the content or textual layer that would directly and immediately affect education. However, there might be tertiary or future effects on education deriving from the trend of a crossover of patent protection to copyright protection and its possible effects on education. A discussion of these possible effects is included at the end of this chapter.

Title IV

This title contains a group of miscellaneous provisions including those affecting distance education. Title IV also includes exemptions for libraries and regulations regarding the making of ephemeral recordings, "webcasting of sound recordings on the Internet, and the applicability of collective bargaining agreement obligations in the case of transfers of rights in motion pictures." The Title IV item that most directly concerns educators and students is regulation of distance education. Section 403 of the final Joint version, however postpones legislative decisions concerning distance education and "directs the Copyright Office to consult with affected parties and make recommendations to Congress on how to promote distance education" (Summary 15). An appendix to the DMCA, which is more specific than Section 403, directs the Copyright Office to research the following legislative goals regarding distance education for consideration by Congress before more specific regulation is decided upon:[47]

- possible exemptions for educators and students

[47] This is not an all-inclusive list. The Summary of the DMCA (see appendix) explains that Congress also directs the copyright office to consider "the extent to which the availability of licenses should be considered in assessing eligibility for any exemption; and other issues as appropriate" (15).

- types of works that should be exempted and limits on digital copies
- who should receive digitally transferred intellectual property
- what kind of code protection should be mandated to limit access to distance education materials

Modifications to the regulations of distance education resulted from research into the above items and from presentation of this research to Congress by Marybeth Peters, the Register of Copyright.[48] These modifications were passed by Congress as H.R. 2215 and they are integrated into and described in Section 110 of U.S. Code Title 17.[49] Although Section 110 was subsequently re-modified and several of its regulations reversed in the "Technology, Education and Copyright Harmonization Act" (TEACH), passed in November of 2002, only Section 110 will be considered in this chapter because the task I have laid down for this dissertation is the analysis of the DMCA only. TEACH will be discussed in more detail in Chapter 5. See Appendix II for the text of the TEACH Act.

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[48] Ms. Peters' report to the 106th Congress addresses six issues: 1.) the current "nature of distance education," 2.) licensing for the purpose of distance education delivery of copyrighted materials, 3.) technology with regard to materials delivery and protection issues, 4.) whether traditional copyright law can be applied to distance education technology, 5.) "prior initiatives concerning distance education," and 6.) "whether the law should be changed" considering the Register's research into distance education. The text of Ms. Peters speech can be found at the following U.S. Copyright Office URL: <http://www.copyright.gov/docs/regstat52599.html>

[49] Section 110 has been modified since the DMCA passage in October of 1998. On November 2nd, 2002, the "Technology, Education and Copyright Harmonization Act" (the TEACH Act) was signed into law by President Bush. This act reverses previous DMCA restrictions concerning distance education in that 1.) transmission of most performance and display materials are now allowed, 2.) a classroom is no longer defined in traditional terms (face to face instruction in unmediated place and in real time), and 3.) analog materials can now be digitized for distance education purposes. See ALA (American Library Association) web site for a user friendly and non-legal explanation of these changes to the original H.R. 2215. The web page URL is <http://www.ala.org/Template.cfm?Section=Distance_Education_and_the_TEACH_Act&Template=/ContentManagement/ContentDisplay.cfm&ContentID=25939#benefits>. Because I am discussing the DMCA and its particular effects on academic authors and audiences, I do not include discussion of these changes here.

Primary Effects in Content Layer

Section 110 of Title IV (formerly H.R. 2215) describes regulation that directly affects the content level in that it controls the type of works allowed to be transmitted within a distance education context. Title IV prohibits transmission of works "produced or marketed primarily for performance or display" (Section 110; U.S. Code Title 17),[50] including movie videos and certain musical performances that are not in the public domain, works that normally could be transmitted in a conventional classroom setting. In other words, an instructor cannot broadcast the movie, *Dead Poets Society,* to a distance education class that meets in a venue other than a traditional classroom—if students view the class from a dorm room, for example.

Secondary Effects in Content Layer

Some secondary effects to content layer from the provision described in Section 110; Subsection 2A and 2B. This subsection forbids conversion of text from analog to digital format. For example, the scanning of a copyright-protected Word document for the sake of digital transmission on WebCT or an ITV class is prohibited by the DMCA distance education provisions; therefore, certain content, by virtue of this code control, is also regulated and the balance of burdens and benefits shifts.[51]

Title V

This title is titled, the "Vessel Hull Design Protection Act" and specifically protects reproduction of vessel hull designs.

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[50] See Footnote no. 49.
[51] See Footnote no. 49.

Primary Effects in Content Layer

No discernible primary effects exist in Title V at the content layer. This title controls the physical design of a boat.

Secondary Effects in Content Layer

No discernible effects on educators and students exist in Title V at the content layer.

Summary of Control in Content or Textual Layer

The Content or Textual Layer's effects are mostly secondary (See Table 2 below). Secondary effects on education in Titles I and II derive chiefly from the anti-circumvention

Table 2
CONTROL AFFECTING ACADEMIC AUTHORS AND AUDIENCES AT THE CONTENT LAYER IN DMCA TITLES I THROUGH V

Effect Level	Title I	Title II	Title III	Title IV	Title V
Primary Effects				Prohibition of transmission of performance and display works	
Secondary Effects	Circumvention prohibition	OSP regulation and description of user punishment for infringement of Title I provisions		Conversion of performance and display works prohibition	

and anti-alteration provisions described in Title I, provisions which primarily control code circumvention and CMI alteration, but which also affect access to content. Secondary effects in Title I result from the punishment prescribed from infringement on university OSP's. This

punishment discourages access to content controlled by the Title I anti-circumvention provision.

The Content Layer is most directly affected by the control of specific types of distance education transmissions like performance and display works. Because Title IV denies access to these works in other than a traditional classroom, students are denied the benefit of viewing an Internet broadcast of a ballet or a televised debate, for example, if they view it in their dorm rooms for the purposes of distance education class. Therefore, the most obvious shifting of burdens and benefits occurs at this level, as the burden of access to these restricted materials increases for educators and students.

Table 2 above illustrates that Titles III (computer maintenance provisions) and Title V (protection of vessel hull designs) regulations have no immediate discernible effects on the academic audience and author.

Control in the Code Layer

The code layer includes the coded language that allows or forbids the transmission of content. Code also describes the binary system that provides a structure to software and that facilitates communication between and among internetted and intranetted computers. It is the layer between content and hardware that allows the hardware to transmit content.

Title I

To reiterate, Title I establishes two new provisions to harmonize with international copyright law: 1) The anti-circumvention provision. 2) The CMI anti-alteration or anti-tampering provision. Section 1201 of Title I prohibits not only code circumvention and CMI tampering, but also the "manufacture, sale, distribution, or trafficking of tools and technologies that make circumvention possible."

Primary Effects in Code Layer

Both the anti-circumvention and the CMI anti-alteration provision directly address the code that facilitates transmission of content. Because the manipulation and redesign of computer code, prohibited by the anti-circumvention provision, can be an academic activity, education is directly affected. The Gutenberg example used in Chapter 2 illustrates one of the burdens this provision places on educators and students. If the "free access" *Gutenberg Project* site were to become a restricted access site due to the site owners' employment of anti-circumvention software, even works in the public domain, like *Huckleberry Finn,* could not be legally accessed by users without gaining permission from the owners and probably paying a fee or buying a subscription.

Another more subtle regulation of academic activity is found in Section 1202, which prohibits the altering of CMI. CMI is defined as

> the information that identifies the work, the author of the work, the owner of any right in the work, or information about the terms and conditions of use of the work, and any numbers or codes that represent such information, when any of these items of information is attached to a copy of a work or appears in

> connection with the communication of the work to the public,. (Section 1202; subsect. C)

Although this prohibition seems fair to all and innocuous to education, what defines CMI according to subsection (c) is broad enough to contain information that also acts as code protection, again invoking the anti-circumvention provision and impeding those in education who would research security systems. According to *EFF* (Electronic Frontier Foundation), who describe themselves as "a non-profit group of passionate people — lawyers, volunteers, and visionaries — working to protect your digital rights," the SDMI/Felten case discussed in Chapter One suggests that anti-circumvention absolutism will

> ultimately result in weakened security for all computer users (including, ironically, for copyright owners counting on technical measures to protect their works) as security researcher shy away from research that might run afoul of section 1201 [anti-circumvention and CMI anti-tampering provisions]. ("EFF Whitepaper: Unintended Consequences")

Since academics and their students are often involved in research, anti-circumvention absolutism may effectively discourage some research activity. The anti-circumvention provision directly controls the code layer and results in a detectable shift in burdens and benefits because no reliable fair use provision allows educational use of code protected content.

Secondary Effects in Code Layer

No discernible secondary effects exist in Title I at the code layer. All effects are primary and directly control and protect computer code.

Title II

Describes control of University OSP's and prescribes specific fines and criminal punishment for violating users, while exempting university OSP's from liabilitiy in cases of user infingement if:

- materials are protected by obvious copyright, and if permission to use and copy those materials was not granted by copyright owner
- the university has not received at least two previous notification of infringing activities by the student or faculty member currently accused and if the accused faculty member or graduate student was not provided with nor recommended teaching the copyrighted materials
- the university has complied with the U.S. Code regulation mandating dissemination to users information "describing and promoting compliance" with copyright law

Primary Effects in Code Layer

No discernible effects on educators and students in Title II at the code layer. DMCA regulation in this Title primarily controls physical infrastructure.

Secondary Effects in Code Layer

Because punishment is both mandated and prescribed in Title II for infringers of the anti-circumvention and CMI anti-tampering provisions, which directly regulate code, this Title strengthens control of code. Even though Title II most directly regulates the OSP physical infrastructure, both code and content layers are affected for the same reasons. The previous example of the teacher who is impeded from copying a code-protected online

journal article also applies here, in that if that teacher loses physical access to the OSP environment, she not only loses access to such materials as journal articles, she also loses access to the code that allows the university licensed virus software to scan a student's floppy disk before she opens it.

Title III

Title III regulates computer maintenance activity and provides very narrow exemptions for circumventing code protection for the sake of computer repair and maintenance, provided that repair and maintenance results in a machine that is restored "to the state of working in accordance with its original specifications and any changes to those specifications [are] authorized for that machine" (Section 302 d2).

Primary Effects in Code Layer

Because Title III directly addresses the manipulation of code during maintainence, this layer is directly affected. Title III forbids any modification in its directive that, after repair or maintenance, the machine must be restored to the "original specifications. Title III's narrow exemption allowing the circumvention of code (restricted in Title II) is undermined by this directive, resulting in the impeded creativity of a university computer science student or technical support intern who discovers a way to alter the circumvention code to more easily repair or maintain a machine. In altering a code for easier access, the user breaks the law.

Secondary Effects in Code Layer

No discernible effects on education exist in Title II at the code layer. Title III primarily regulates code and physical infrastructure.

Title IV

As stated earlier, this title addresses a group of miscellaneous regulations. The most relevant provisions directly address distance education venues and the transmission of various educational materials in those venues. This Title's information comes from Appendix V to the DMCA and from Section 110 of the U.S. Code because decisions were postponed until a researched report concerning distance education issues was delivered to Congress six months after the passage of the DMCA.

Primary Effects in the Code Layer

The area of code control prescribed by Title IV concerns the prohibition of "the conversion of print or other analog versions of works into digital formats" if "no digitized version is available to the institution; or the digital version of the work that available to the institution; or the digital version of the work that is available to the insitution is subject to technological protection measures" (Section 110; Subsection 2A and B).[52] This regulation controls the code that makes it possible, for example, to scan a word processed document into digitized instructional materials for the purpose of transmitting to a distance education class. In other words, it is, for example. Title IV forbids an instructor to convert a pdf or html print newspaper article to digitized format.

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[52] See Footnote no. 49.

Secondary Effects in Code Layer

Title IV also contains a provision that forbids transmission of works "marketed primarily for performance or display" during distance education class period.[53] While this provision directly controls content, it also regulates code to a lesser degree because the digital code that permits transmission of these types of materials is not to be used by law because students can view this material with non-students in a remote location and this viewing by non-students would violate the educational purposes exemption.

Title V

Again, the "Vessel Hull Protection Act" does not directly affect academic audiences.

Summary of Control in Code Layer

At the code layer of the DMCA, there appears to be much more legislative control than at the content level (see Figure 3 below) and primary control appears in Titles I, III, and IV. Title II is controlled in the code area only because of threat of punishment for those who infringe via circumvention or CMI tampering. In other words, threat of punishment increases control of the code in Title II. Title V, which controls distance education is concerned mainly with the transmission and conversion of certain materials. Direct prohibition of conversion from analog to digital format has primary effects in the code layer on educators in that the Title severely restricts the available materials for classroom use. Secondary effects derive from the prohibition of transmission of performance and display works in a distance

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[53] See Footnote no. 49.

education venue because transmission is facilitated by code.[54] The controls prescribed by at the code layer did not exist before the DMCA. Those controls—including the anti-circumvention and anti-CMI alteration provisions, new prescribed punishment for infringers on OSP's, and restrictions pertaining to distance education—place additional burdens on educators and students at all three layers of the digital environment; therefore the balance of burdens increases.

Table 3

CONTROL AFFECTING ACADEMIC AUTHORS AND AUDIENCES AT THE CODE LAYER IN THE DMCA TITLES I THROUGH V

Effect Level	Title I	Title II	Title III	Title IV	Title V
Primary Effects	Circumvention and CMI anti-tampering prohibition		Prohibition of permanent alteration or manipulation of code protection after computer maintenance	Prohibition of conversion from print or analog into digital formats for distance education	
Secondary Effects		OSP regulation and description of user punishment for infringement of Title I provisions		Prohibition of performance and display works for distance education	

[54] See Footnote no. 49.

Control in the Physical Infrastructure Layer

Control at the physical infrastructure layer includes regulation of computer hardware (computers, wires, cable, etc.) and anything pertaining physical venue. It is the layer that the content travels on, in, or across. The early computer history included only control at this layer because there were so few computers. Whoever had the computer controlled the digital physical infrastructure and when access to physical infrastructure is controlled, so is access to content and code.

Title I

Title I provisions directly control protection control codes and copyright management information codes.

Primary Effects in Physical Infrastructure Layer

No discernible primary effects exist in Title I at the physical infrastructure layer..

Secondary Effects in Physical Infrastructure Layer

No discernible secondary effects exist in Title I at the physical infrastructure layer.

Title II

Title II describes regulations applying to online service providers and specifically university OSP's.

Primary Effects in the Physical Infrastructure

Title II regulates the physical infrastructure layer, in that it describes conditions under which users can be denied access to the OSP-owned Internet providing equipment. It also

describes the conditions under which an OSP can be denied a license to provide Internet access to its users. This Title specifically states that faculty and graduate students can be held liable for infringement. For, example, if a graduate teaching assistant were to use images of password protected homepages or websites for the purpose of demonstrating effective website design or effective visual rhetoric may be violating the anti-circumvention provision described in Title I. Even if the graduate student were ignorant of the law, if the infringement occurred and was reported more than twice, the student would be liable and could be denied access to the physical infrastructure.

Secondary Effects in the Physical Infrastructure

No discernible effects exist in Title II at physical infrastructure layer.

Title III

Title III concerns and regulates activities of computer maintenance and repair.

Primary Effects in Physical Infrastructure

Because Title III specifically orders that the computer be restored "to the state of working in accordance with its original specifications [factory specifications]," tech support personnel and computer scientists and students, for example, may not modify a machine's code or hardware to make it work more efficiently or to install permanent "non-original" changes that would help the user avoid break-downs and freeze-ups. The physical infrastructure is thereby controlled and limited to its factory specifications. In an academic setting, prohibition of these types of modifications can restrict technological progress and impede research by preventing the emplacement of modifications that would improve efficiency of the technology and that might eventually benefit the non-academic user.

Secondary Effects in Physical Infrastructure

No discernible secondary effects on education exist in Title III at the physical infrastructure layer.

Title IV

This title controls not only what is transmitted and how something is transmitted in a distance education class, it also puts limits on the physical venue of the online class.[55]

Primary Effects on Physical Infrastructure

Section 110 of Title 17 concerns the transmission of display and performance pieces. Section 110, Title 17 of the U.S. Code restricts performance to "reception in classrooms or similar places normally devoted to instruction." This section limits "performance or display of a work by instructors or pupils in the course of face-to-face teaching activities of a nonprofit educational institution" to "a classroom or similar place devoted to instruction." The physical infrastructure layer, therefore, affected because the DMCA, as integrated into U.S. code regulates the physical environment in which a movie or video can be shown. Because the viewing by "non-students" cannot be controlled outside the classroom, performance material can only be shown in a traditional classroom setting.[56]

Secondary Effects on Physical Infrastructure Layer

No discernible secondary effects on education exist in Title IV at the physical infrastructure layer.

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[55] See footnote no. 49.
[56] See footnote no. 49.

Title V

The "Vessel Hull Design Protection Act" does not directly affect academic audiences and authors at this time, but future effects will be discussed at the end of this chapter.

Summary of Control in Physical Infrastructure Layer

Effects of control at the physical infrastructure layer are exclusively primary (See Figure 4 below. DMCA control at this level occurs in Titles II, III, and IV, as it relates to academic audiences and authors. Restricting access at the physical level results in restricted access at both the content and code layers. In other words, if the computers, wires, cables, and other hardware are controlled, access is automatically restricted at the other two levels. Control of physical environment for distance education, prohibition of modifications resulting from computer maintenance activities, and prescribed punishment from infringers at

Table 4

CONTROL AFFECTING ACADEMIC AUTHORS AND AUDIENCES AT THE PHYSICAL INFRASTRUCTURE LAYER IN THE DMCA TITLES I THROUGH V

Effect Level	Title I	Title II	Title III	Title IV	Title V
Primary Effects		Descriptions of punishment for infringement results in denial of access of equipment and Internet	Prohibition of permanent alteration of computer equipment during maintenance & repair.	Venue for performance and display materials limited to face to face classroom, not for distance education use.	
Secondary Effects					

this layer illustrate an increase of control due to DMCA legislation. The burdens on education resulting from the DMCA controls at this level indicate a noticeable shift in balance of benefits away from educators and students, as compared to the digital environment before the DMCA.

Summary of DMCA Control in All Layers of the Digital Environment

Table 5 on the following page illustrates regulatory controls that I identify in the an examination of the DMCA as they emerge within Yochai Benkler's communication layers in a title by title analysis of the DMCA regulations affecting academic audiences and authors. The specific DMCA regulations that shift the balance of burdens away from copyright owners and toward academic stakeholders and, conversely, the benefits toward copyright owners and away from academic stakeholders, can be broadly described as follows:

- Title I's anti-circumvention and CMI anti-tampering provisions
- Control of University OSP's specifically with regard to the imposition of punishment for individual faculty and graduate student infringers
- Computer maintenance regulations that mandate that equipment be returned to "original specifications after repair and maintenance activities
- Distance education regulations defining appropriate classroom venue for display of certain materials, prohibition of transmission of display and performance materials, and

prohibition of conversion of analog materials to digital materials for the purpose of electronic display or transmission.

Table 5 below indicates DMCA regulations that shift the balance of burdens toward and the balance of benefits away from educators and students. Each regulation primarily targets a specific area of the digital environment, represented in the table by a Benkler layer. The particular layer (i.e., content, code or physical infrastructure) corresponds with the DMCA title (i.e., Title 1, Title 2, Title 3, etc.) in which the regulation can be found. Regulations in these primary control areas are indicated in **bold.**

Some layers are secondarily affected as a result of regulation of primary targeted layers (in bold). The regulations in layers that are secondarily affected are indicated in ***unbolded italics.***

A box marked NO DISCERNIBLE EFFECTS ON ACADEMIC STAKEHOLDERS simply means that I could detect no obvious and immediate effects on academic stakeholders in the particular DMCA title and the corresponding Benkler layer. By "academic stakeholders," I am referring only to educators and their students, not to the university as an institutional stakeholder because, as explained in Chapter 2, sometimes university and educators interests, concerns and burdens diverge.

Four characteristics of DMCA control, affecting the balance of burdens and benefits for academics and their students, emerge from Table 5 above:

Table 5

PRIMARY AND SECONDARY EFFECTS ON EDUCATORS AND STUDENTS IN A LAYER BY LAYER ANALYSIS OF THE DMCA TITLES I THROUGH V

Benkler's Layers	**Title 1**	**Title 2**	**Title 3**	**Title 4 (distance education)**	**Title 5**
Content	*anti-circumvention* *CMI anti-tampering*	*imposition of punishment for university OSP user infringing activities*	NO DISCERNIBLE CONTROL EFFECTS ON ACADEMIC STAKEHOLDERS	*prohibition of transmission of display& performance materials* *prohibition of conversion of analog to digital format for electronic display & transmission*	NO DISCERNIBLE CONTROL EFFECTS ON ACADEMIC STAKEHOLDERS
Code	**anti-circumvention** **CMI anti-tampering**	*imposition of punishment for university OSP user infringing activities*	**computer maintenance code & machine altering restrictions**	**prohibition of conversion of analog to digital format for electronic display & transmission** **prohibition of transmission of display & performance materials**	NO DISCERNIBLE CONTROL EFFECTS ON ACADEMIC STAKEHOLDERS
Physical Infrastructure	NO DISCERNIBLE CONTROL EFFECTS ON ACADEMIC STAKEHOLDERS	**imposition of punishment for university OSP user infringing activities**	**computer maintenance code & machine altering restrictions**	**venue for performance & display materials limited to face to face classroom**	NO DISCERNIBLE CONTROL EFFECTS ON ACADEMIC STAKEHOLDERS

1. The code layer contains more controls affecting academia than the other two layers. And what is immediately noticeable is that the code layer is regulated by every Title except Title V, which has no effects on academic audiences and authors at any level. That the code layer is most heavily regulated by the DMCA is not surprising because one purpose of digital copyright law (as explained in Chapter 1) is to address technological changes not covered by previous intellectual property law. Digital code is unique to computer technology and, up to the passage of the DMCA, had never been regulated.

2. That whenever the code layer is regulated, content is also regulated with the exception of the computer maintenance provision. However, one could argue that because everything must be returned to "original specifications" in maintaining or repairing a computer, text, even binary text, must also be included. However, I chose not to include it in this table because content is not normally manipulated during computer maintenance and the transmission of content is not the purpose of computer maintenance. In regulating code, the anti-circumvention provision denies educators and their student's access to the public commons in a digital environment—key content burdens identified in the academic non-legal documents. In his book, *The Future of* Ideas, Lawrence Lessig explains the importance of the interaction between the code and content layers in a reflection on the state of the public commons in the early 1990's (pre-DMCA) when code was relatively free.

> This commons had three aspects. One is a commons of code—a commons of software that built the Net and many of the applications that run on the Net. A

> second is a commons of knowledge—a free exchange of ideas and information about how the Net, and the code that runs on the Net, runs. And a third is the resulting commons of innovation built by the first two together—the opportunity, kept open to anyone, to innovate and build upon the platform of the network (48).

Access to a healthy public commons and a reliable fair use provision for educators and students is at the foundation of all other concerns identified in the CCCC, NCTE, and AAUP documents. What the anti-circumvention regulation does at each layer is to undermine these foundational elements and shift the balance of benefits away from academic stakeholders.

3. The third significant characteristic of DMCA regulation illustrated in Table 5 is the variety and abundance of control at every level that Title IV (the Distance Education title) prescribes, including prohibition of digital transmission of copyright protected materials, prohibition of the broadcasting of performance and display materials and conversion from analog to digital format for the purpose of display and transmission. Also, primary control exists at both the code and physical infrastructure level with secondary control existing at the content level of Title IV. This control is especially troubling because the future of distance education, an ever-expanding trend in education depends on effective and efficient technology delivery systems. If the technology is controlled in a way that prevents student or teacher access or that prevents the transmission of materials, the delivery system becomes inefficient in delivering or displaying learning materials.

4. The final aspect illustrated by Table 5 is that all physical infrastructure control is primary control that affects other layers secondarily. Control of university OSP's, performance and display materials, and computer maintenance all have both primary and secondary controlling effects on the code and content layers. The far-reaching control at the physical level makes elemental sense because—to use Lessig's Speakers Corner example in Table 2—if you do not have access to the park (physical layer) you cannot deliver (code) your message (content).

The answer to the question—Has recent digital copyright legislation shifted the balance of intellectual property benefits and burdens for academic authors and audiences?—must be an unqualified "Yes, the DMCA shifts the burdens toward academic authors and shifts the benefits toward owners in every Title of the legislation and at every level described by Yochai Benkler."

The answer to my research question—How has recent digital copyright legislation shifted the balance?—can be found in points one through four above. A comparison of the digital environment before the DMCA's passage and after shows restrictions in access to materials, an almost non-existent fair use provision, and a shrinking public domain due in large part to a prohibition against circumventing code protection (even for the purpose of accessing materials in the public domain). These restrictions were not in place before the DMCA and they directly affect academic activity.

The only Title that does not affect education is Title V, the "Vessel Hull Design Protection" provision. However, even Title V may indicate a protectionist trend that portends a

new direction of intellectual property protection. That is, certain patentable designs could, in the future, be protected by the longer term of copyright protection. This trend may affect academia because the public domain containing intellectual property formerly protected by patent would no longer be available to student or faculty researchers after only fourteen years or seventeen years, the two current terms of patent protection. The new term would be up to 95 years under copyright, a definite advantage for owners. It is reasonable to assume, considering the recent and historical increase of benefits to the owner, that the vessel design might be just the first design to move from patent to copyright protection.

The increase of benefits to owners of copyright occurs in concert with the shifting of burdens to educators and students. For example, if owner "A" places an anti-circumvention code on a site or in software, "A" can deny access or charge for admission to public domain works traditionally freely available to all. In other words, for educators and students, the burden of accessing digital works has increased, while the benefit of fair use has decreased. Jessica Litman believes that denial of access to works in the public domain does not uphold the principles of copyright law, which should work on a *quid pro quo* foundation. In the chapter of her book titled, "Revising Copyright Law for the Information Age," Litman urges revision of current digital copyright law, arguing that copyright owners should be able to gain profit from protected work, and at the same time, users and audience should have a right to freely access unprotected work.

> [U]ntil the enactment of the DMCA, the public had, and the public should have, an affirmative right to gain access to, extract, use, and reuse the ideas, facts, information, and other public domain material embodied in protected works. That affirmative right should include a limited privilege to circumvent any technological access controls for that purpose, and a privilege to reproduce,

> adapt, transmit, perform, or display so much of the protected expression as is required in order to gain access to the unprotected elements. (185)

Although Litman does not specifically refer to the educational exemption, she does suggest revising the DMCA, so that audience would have automatic fair use privileges to any public domain work protected by anti-circumvention code in order to return to the original constitutional idea of an equal distribution of burdens and benefits to author/owners and audience/users.

Most significantly, these findings suggest an overall climate of restricted or impeded access to materials resulting from the anti-circumvention and CMI anti-tampering provisions, which underpin most other areas of control, like regulation of university OSP's and computer maintenance. Even regulations in distance education, at their core, are justified through the anti-circumvention restriction. For example, conversion of a word-processed document for digital transmission is prohibited by Title IV's addendum because the two formats have different codes and Title I prevents tampering with, changing, or converting those codes. The same code difference restriction applies to transmission of performance and display works in a distance education venue.[57] What this code restriction emphasizes is that without code, and because for the most part fair use exemptions are ignored in the DMCA, there is no unproblematic route around that code.

Yochai Benkler worries that current overregulation of the digital environment represents a shift toward an inflexible non-participatory communication network—much like radio and television mediums. In such a future context, copyright owners become the principal

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[57] See footnote no. 49.

beneficiaries and potential creative input from user-audiences is lost. He urges regulation that allows all—user/audiences, owner/authors, corporations, and individuals—to participate equally in a collaborative creation of a digital future. In his article, "From Consumers to Users: Shifting the Deeper Structures of Regulation Toward Sustainable Commons and User Access," Benkler argues for a protected and robust commons at every layer of the digital environment. He explains why legal protection of the digital commons needs to be encouraged now.

> The emergence of the digitally networked environment makes possible the development of a robust, open social conversation in which all can participate as peers. This technological and economic possibility is not, however, preordained. Decisions about the organization and regulation of the content, logical, and physical layers of the Internet will determine whether the digital environment will eventually, in large measure, replicate the mass media model, or whether it will indeed change the deep structure of our information environment. (579)

As of now, for educational stakeholders, the halcyon days of the 70's and 80's computer environment described by Lessig in the last chapter no longer exist—access to content and code is no longer solely controlled by simple access to a computer thanks to increasing regulation at all levels prescribed by the DMCA. Moreover, the trend toward further copyright control via increasing corporate litigation concerning ownership threatens academic access to all levels. The next chapter discusses some of this litigation and additional legal changes as they affect educational issues and shift of balance of copyright benefits and burdens.

CHAPTER 5

CONCLUSION

> *Does law's participation in the work of "humanizing" the market make law inherently redemptive? Yes, so long as we understand redemption as an aspect of the functioning of a market economy rather than an escape from it—a balm for civilization's discontents rather than a cure. The cultural redemption of capitalism, like the abatement of pollution and the disposal of waste, paradoxically conserves the conditions of its own necessity. (538)*
>
> *~Binder and Weisberg*

This chapter further establishes a shift in burdens toward and shift of benefits away from educators and students in an analysis of recent legislation and litigation regarding the DMCA. Perhaps, if academic stakeholders had played a larger part in constructing the DMCA, educators would have gained a more reliable fair use exemption and a more secure public domain, resulting in more evenly distributed benefits and burdens among all corporate and academic stakeholders—audience/users and author/owners alike. However, as Binder and Weisberg suggest above from their book, *Literary Criticisms of Law,* at the foundation of any law is the goal of the United States legal system, which is, that law provide a framework to support and protect the profitability of our marketplace economy. Those of us in academia who decry the protectionist trend in copyright law would like to "humanize" the marketplace so that non-profit concerns (read: educators and students) also benefit from copyright law, but, as Binder and Weisberg suggest in the excerpt above, this humanizing cannot compromise

laws' symbiosis with the marketplace, nor can it so humanize law, that its existence is no longer necessary.

However, academics also serve a marketplace function in preparing students to become professional and effective participants in the economy. To efficiently prepare these students for this role and to "right" the balance of benefits and burdens for educators, digital copyright law needs concrete provisions that specifically outline a reliable fair use exemption, and that protect some of the digital public domain. These two changes could ensure a continuation of digital creativity from academic researchers through an unimpeded access to digital materials and equipment. And, if there is to be digital creativity, there also must be a guarantee of academic rights to publish and present the results of this academic productivity.

The next two sections of this chapter looks at changes and challenges to digital law that affect fair use, public domain, and academic freedom—including federal legislation concerning distance education and also state, district, and federal court opinions concerning DMCA regulations. This discussion reveals a continuous shifting back and forth of copyright burdens and benefits between author/owners and audience/users interacting in a digital environment, further underscoring the need for a reliable fair use exemption, a healthy and safe public commons, and the right to publish and present research results.

New Copyright Legislation Concerning Distance Education

The two most burdensome DMCA titles are Title I, which protects anti-circumvention measures and Title II, which describes regulation in a distance education environment. Although Title I remains intact as of this writing, Title II has been modified somewhat, to the

benefit of educators and their students. Congress passed these modifications, known as the "Technology, Education, and Copyright Harmonization Act" (the TEACH Act). The TEACH Act was signed into law by President Bush on November 2, 2002. See Appendix II for the TEACH Act.

According to website information, the AAUP was active in supporting the changes to distance education during the TEACH Act's movement through Congress. The AAUP site provides one reason for legislative consideration of modifications, explaining, "The TEACH Act draws on the recommendations of the Copyright Office Report, extending the principles of fair use to distance education courses." AAUP further urges members to actively support TEACH. ("TEACH Act: S.487").

Surprisingly, no information about the TEACH Act exists on either the NCTE or CCCC websites, with the exception of a link to an American Library Association (ALA) article. This lack of information is surprising considering both organizations' vociferous and active opposition to CTEA and DMCA in the years preceding their passage.

The ALA appears to have been one of the most active organizations in lobbying for the distance education modifications. Information about the Act can be found on its website, which also includes a summary of ALA lobbying activities.[58] In an article dated November 4, 2002, ALA announced the passage of TEACH:

> TEACH establishes new opportunities for educators to use copyrighted works without permission and without payment of royalties, but those opportunities

[58] For information about ALA lobbying activities, go to the following URL: <http://www.ala.org/Content /NavigationMenu/Our_Association/Governance/Treasurers_Page/lobbying.htm>.

> are subject to new limits and conditions. The American Library Association joined with numerous other associations and groups representing educators, librarians, and academic administrators to negotiate the language of the TEACH Act and to vigorously support its passage. ("Major Copyright Bill Affecting Distance Education Becomes Law")

This announcement suggests that academic stakeholders *were* involved in this part of copyright law revision. As a result of TEACH, the benefits of copyright shift toward educators and students.

Although the "limits and conditions" referred to in the ALA article above complicate distance education regulations, the TEACH Act does ease some of the most burdensome DMCA restrictions concerning distance education in that:

- transmission of most performance and display works are now allowed
- a classroom, *most cases*, is no longer defined in traditional terms as face to face instruction in an unmediated venue in real time
- analog materials can now be digitized for distance education purposes *within certain limits on quantity*

These modifications signal a shift in benefits toward educators and students and a relaxation of control of digital communication in a distance education environment. Access to performance and display works affects the code layer; an expansion of the definition of a classroom affects the physical infrastructure layer; and allowing conversion of analog materials to a digital

format affects the content layer. Thus, educational stakeholders claim benefit at all three layers, modifying the findings in Chapter 4.[59]

The next section discusses legal challenges resulting from the DMCA and the effects of the challenges on burdens and benefits to educators and students.

DMCA Litigation

To distinguish trends in the balance of burdens and benefits of copyright legislation and to extend my research question into the future, this chapter briefly surveys major legal challenges to the DMCA, and there have been many. The trends are important to identify, as they underscore a possible increase in the erosion of fair use and the public domain—the two most important benefits of copyright law to academic stakeholders.

Dozens of intellectual property litigations involving the newest digital regulations have surfaced since the 1998 passage of the DMCA. Many cases are most significant to the academic concerns identified in the AAUP, CCCC, and NCTE pre-DMCA passage discourse. Many address the anti-circumvention provisions, provisions that affect all of Benkler's three levels in the digital communication environment. Although all of the cases discussed here involve academic concerns identified in the pre-passage documents, only a few cases involves an educational venue, but most are important to establishing trends in the shifting balance of academic burdens and benefits in copyright law and to underscore the corporate and academic

[59] See the ALA (American Library Association) website for a user friendly and non-legal explanation of these changes to the original H.R. 2215 (now integrated into Sec. 110 of the U.S. Code. The web page URL is <http://www.ala.org/Template.cfm?Section=Distance_Education_and_the_TEACH_Act&Template+/Content Management/ContentDisplay.cfm&ContentID+25939#benefits>.

dialect concerning intellectual property law. The cases I discuss here are as follows (in chronological order):

- *Kelly v. Arriba Soft Corp.* 1999 WL 1210918 (C.D. Cal. Dec. 15, 1999). Deals with two issues: (1) Whether fair use protects a visual search engine (a group of thumbnail sized images). (2) Database creation.

- *Felten v. RIAA* June 6, 2001 (U.S. District Court of New Jersey). Addresses the anti-circumvention provision and also the right of educators to publicly present research findings of reverse engineered code. See Chapter 2 for a summary of the case.

- *The New York Times v. Tasini*, June 25, 2001 (U.S. Supreme Court). Concerns the issue of whether a database can contain the work of a freelance author without that author's permission.

- *DVD Copy Control Association v. Andrew Brunner*, November 1, 2001 (Sixth Appellate District Court of California). Concerns the publication of a protected code to an online bulletin board.

- *United States v. Elcomsoft*, December 17, 2002 (U. S. Supreme Court). Concerns a Soviet PhD student who developed software that converts one format (Advanced eBook Processor) to another (PDF). The defendant, Dmitry Skylarof was arrested and jailed.

Unless otherwise cited, all uncited quotations used in the case discussions are extracted directly from the case text itself.

Kelly v. Arriba Soft Corporation.

Case Summary

In 1999, one year after the passage of the DMCA, Leslie A. Kelly brought legal action against Arriba Soft Corporation for copyright infringement of original photographs from two websites. Arriba Soft Corporation was a search engine called Arriba Vista Image Searcher that randomly captured visual images from the Internet and transformed them into thumbnail images in a database for computer users to peruse.[60] Kelly claimed that, in addition to reproducing copyrighted images, Arriba removed all copyright information from each image in violation of the DMCA Title I's CMI anti-alteration or anti-tampering provision.

Court's Decision

The District Court of Northern California ruled that

> On apparent first impression, the Court holds the use by an Internet "visual search engine" of others' copyrighted images is a prima facia copyright violation, but it may be justified under the "fair use" doctrine. The Court finds that, under the particular circumstances of this case, the "fair use" doctrine applies, and the Digital Millennium Copyright Act is not violated. (Case No. SA CV 99-560 GLT[JW])

[60] The Arriba site is now called "Ditto" and can be reached at URL: http://ditto.com/

The court additionally ruled that although copyright management information was missing from the thumbnail images, Title I's CMI anti-alteration or anti-tampering provision was not violated because

- Arriba's searching software unintentionally removed copyright information so the removal was merely a "side effect" of the web crawler operation.
- Information was provided for linking the site from which the image came.
- A warning was posted on the search site that advised users that some images may be copyrighted and that restrictions for use may apply.

Discussion

Two aspects of the District Court's opinion are significant for education. First, despite the absence of fair use consideration in the DMCA, the Court chose to base part of its decision on a meticulous consideration of all four legs of the fair use provision.[61] Even though the Court found that only two of the four legs favored granting fair use, the fourth leg, the effect of use on the value and market, to be the most important element; therefore, fair use was granted. Law's connection to and support of the market economy is emphasized in this portion of the decision. However, education could indirectly benefit because this case establishes fair use as a precedent for future digital copyright cases. In fact, Gary L. Taylor, the District Judge who

[61] The four legs of the fair use provision according to the 1976 copyright act are:
- The purpose and character of use
- The nature of the copyrighted work
- The amount and substantiality of the portion used
- The effect of use on the potential market or value

wrote the Arriba opinion specifically supports the educational exemption in the following excerpt from his decision:

> Notwithstanding the provisions of sections 106 and 106A, the fair use of a copyrighted work, including such use by reproduction in copies or phonorecords or by any other means specified by that section, for purposes such as criticism, comment, news reporting, teaching *(including multiple copies for classroom use), scholarship* [italics mine], or research, is not an infringement of copyright.

The second significant aspect for education is that Kelly's claim that Arriba violated the CMI protection provision was struck down due to the lack of intention to infringe by Arriba, and also because Arriba notified the search engine users that copyright restrictions may apply. Title I has specific language prohibiting the removal or alteration of CMI before the act of distribution of copies. However, the provision also considers intention to conceal copyright information and that was the aspect of this provision the Court heeded. What this emphasis on intention does is to open the door a little for the educational exemption in cases where the intention is tampering with CMI for non-profit educational purposes. In other words, the CMI anti-tampering provision may be circumvented if one can prove non-economic intent, and this affects balance in that the fair use exemption was designed for non-profit use of copyright protected materials. This decision strengthens fair use, a primary educational concern, thereby, shifting the balance a bit toward educators and students.

Felten v. RIAA.

Case Summary

While *Kelly v. Arriba Soft Corp.* was based on a charge of infringement of the Title I's CMI anti-alteration provision, *Felten v. RIAA* addresses the other leg of Title I, the anti-circumvention provision.

Preceding this case computer scientist, Edward W. Felten, and a team of faculty and graduate students responded to an online challenge from the Secure Digital Music Initiative Foundation (SDMI) to "crack" a code protecting digital music from copyright infringement under Title I.[62] Felten's group succeeded, reported their findings to SDMI, wrote up their research findings, and planned to present these findings at an academic conference. However, the Recording Industry Association of America (RIAA), an organization that used the very technology that SDMI offered in the challenge, threatened to sue if the research were made public. This threat effectively stopped presentation and publication of the code cracking research. Felten and his group took the matter to the U.S. District Court of the District of New Jersey to receive some guarantee that publication and presentation of this and future academic research would not result in litigation. They also charged that the anti-circumvention provision of the DMCA was unconstitutional and therefore, should be struck down.

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[62] As cited in the *Felten v. RIAA* complaint text: "SDMI is 'a forum that brings together more than 180 companies and organizations representing information technology, consumer electronics, security technology, the worldwide recording industry, and Internet service providers. SDMI's charter is to develop open technology specifications that protect the playing, storing, and distributing of digital music such that a new market for digital music may emerge.'" http://www.sdmi.org/

Court's Decision

In November of 2001, U.S. District Court Judge Garret E. Brown dismissed the charges for two reasons. First, in the period between the filing of charges and the dismissal of the case, SDMI, the Attorney General's office, and RIAA assured Felten's team that they would not be prosecuted for presenting or publishing their findings.[63] Judge Brown felt that this was assurance enough and therefore, the Court's additional assurance was unwarranted and unneeded.[64]

Second, Judge Brown declared that the concern of Felten et al. was a "political, rather than a legal concern, one that can best be pursued in the halls of the Legislature until they [Felten et al.] have a real case or controversy to bring before this Court." In other words, the Court refused to strike down the anti-circumvention provision, claiming that any action to eliminate the provision should take place in the legislative, not the judicial branch of government.

Discussion

This case addresses the anti-circumvention provision, identified by my research findings in the last chapter and by AAUP, CCC, and NCTE as the one of the most significant to academic concerns. What is important here is the secondary effect—the chilling effect on academic right to publish and present research. This right, supported the fair use provision

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[63] Of the four papers to be published and presented, two were the work of graduate students.

[64] Judge Brown poked fun at Felten's group in his decision saying, "The plaintiffs liken themselves to modern Gallileos persecuted by authorities. I fear that a more apt analogy would be to modern day Don Quixotes feeling threatened by windmills which they perceive as giants. There is no real controversy here."

outlined in the 1976 Copyright Act, was all but ignored in the 1998 DMCA, and Judge Brown did not reference fair use in his dismissal of charges.

It is obvious, because of public activist organizational support and the activist past activities of Edward Felten with regard to the DMCA, that this case was a political rallying cry for protest against the abridgement of academic rights in digital copyright law. One could also assume that SDMI and RIAA sensed the political weight of this protest, and consequently, withdrew their threats to avoid negative publicity for an industry still trying to mend bridges after the demise of Napster. So each side had strong political interests in the outcome of this case.

Although no concrete changes or precedent occurred as a result of this case, it does accomplish two tasks. It draws attention to the anti-circumvention provision's potential for harm to academic interests and it establishes a public academic position for legislators to consider when creating future digital law. Nonetheless, the threat of further litigation involving academic interests and prohibition of circumvention protection remains. So, in this case, although Felten and his group benefit from RIAA and SDMI's legal retreat, the additional burden of strict anti-circumvention restrictions to educators and students remains. This decision does little to strengthen the fair use exemption, so the balance remains in favor of owners.

The New York Times et al. v. Tasini et al.

Case Summary

In this case, freelance authors, who wrote articles for the *New York Times* and other publications, charge the *Times* and the other publications with copyright infringement because the periodicals licensed and sold the articles to such computerized databases as LEXIS/NEXIS. The databases to which the works were sold are universally-used university reference subscription databases.

Court's Decision

The District Court ruled for the publishers arguing that the authors' works belonged to the original collective work (e.g., an issue of the *New York Times*) to which the authors originally submitted their work. The Second Circuit Court reversed that decision and on June 25th, 2001, the U.S. Supreme Court upheld the lower court's decision because "the Databases reproduce and distribute articles standing alone and not in context." Therefore, according to the court, the works are not considered to be an integral part of a collective work once they have been individually handed over to the database company. Both the database company and the original periodical were held responsible for infringement of the author's copyrights. The Court ruled that the original copyright belongs to the author and therefore, it is the author who must contract with the database company.

Discussion

The Tasini decision in some ways mirrors the *Basic Books, Inc v. Kinko's* case. As described in Chapter 2 of this paper, Kinko's copying company was found guilty of copyright

infringement for not gaining permission from author/owners before assembling, copying, and selling coursepacks to college students. Although referred to as a database, the Tasini database has similar characteristics to the coursepack, in that both are used in universities and both contain essays, articles, and possibly, works of fiction. They are not databases in the sense that a telephone directory is. Another similarity is that both cases concern works of which college students and educators make frequent use. Therefore, it is safe to assume that since both compilation assemblers were found guilty, the results of the Tasini and Kinko's cases will be similar. Consequently, we can probably anticipate a rise in college library subscription rates for online databases as database owners scramble to seek copyright permission from each author. Also the assembling of databases may take longer, since the search for authors will slow the process, and could, in some cases, result in less timely delivery of relevant material. In any case, access to and delivery of material is impeded—a blow to fair use. In a 1996 article titled "Intellectual Property and Composition Studies," Andrea Lunsford and Susan West describe the effects of the Kinko's decision on education:

> With this decision, the technology of photocopying (generally regarded as a boon for the educational community) felt the force of an accelerating high protectionist trend in copyright, a shift toward expanded rights for creators and publishers at the expense of information users—like teachers and students. As a result intermediaries sprang up to collect (and skim of some) fees for all kinds of materials, including essays, . . .and the price of coursepacks rose dramatically, often beyond the ability of students to purchase them or the will of faculty to require them. (384)

It is not a far leap to conclude that the results of the Tasini decision will mirror the results Lunsford and West describe above.

Even though the Court relied on copyright law written before the DMCA, the decision does affect the digital realm regarding academic concerns. And just as in the Kinko's case, fair use is not interpreted to apply here. This decision again shifts the benefits toward the owners and away from educational stakeholders.

DVD Copy Control Association v. Andrew Brunner.

Case Summary

In 1999, DVD Copy Control Association (DVDCCA) filed for, but was not granted, a temporary restraining order against Andrew Brunner and any other website operator to prevent them from posting the DVD anti-circumvention code on websites, online bulletin boards or chat rooms.[65] DVDCCA is a security organization similar to SDMI, the organization that issued the code cracking challenge in the Felten case. The code that Andrew Brunner was accused of posting to his web site was an anti-circumvention code. This code, called DeCSS "consists of computer source code which describes a method for playing an encrypted DVD on a non-CSS-equipped DVD player or drive." Brunner extracted the code from an Internet chat room after it had been uploaded by a 15-year old Norwegian, Jon Johansen.

[65] A DVD is five-inch thin disk used for a large amount of data, not only textual data, but also motion pictures and music.

In January of 2000, DVDCCA requested an injunction requiring Brunner to cease publishing or using the code. A preliminary injunction was issued on January 21st. The case discussed here is Brunner's attempt to have the injunction lifted in 2001.

Court's Decision

The Court of Appeal of the State of California, on November 1, 2001, lifted the injunction against Andrew Brunner and awarded him appellate costs. The basis of DVDCCA's argument was that Brunner's posting of the code could be considered infringement because it violated the Uniform Trade Secrets Act (UTSA). Brunner argued that the injunction impinged on his First Amendment rights "because it exerts prior restraint." Prior restraint, in simple terms, means that the government, in placing its injunction on Brunner, prevents him from expressing himself before expression occurs. He also argued that since the code was reverse-engineered in Norway, which does not prohibit reverse engineering, that U.S. license agreements and prohibitions do not apply.

The Court ruled that Brunner's prior restraint of free speech argument was more compelling than the DVDCCA's trade secrets argument, saying:

> DVDCCA's statutory right to protect its economically valuable trade secret is not an interest that is more fundamental than the First Amendment right to freedom of speech. Our respect for the Legislature and its enactment of the UTSA cannot displace our duty to safeguard the rights guaranteed by the First Amendment. Accordingly, we are compelled to reverse the preliminary injunction.

Discussion

In some respects, this case resembles the Felten case because, in both cases, prior restraint was used to prevent future speech. Although this case is not about a student or educator, it can apply to cases where research is posted online. If, for example a student assembles a database of links to sites and works by 20th century Irish-American authors for a literature class, an injunction could require that student to disassemble the website and not to reveal the sources of that information. However, in more parallel examples, student computer scientists may reverse engineer the code that prevents converting a pdf file to an analog file in a demonstration of the weakness of code protection. Would a publication of the code to a website then be infringement? If so, imagine the creative improvements that are suppressed by the resulting injunction. In supporting free speech in this case, the Court weakens the anti-circumvention provision, which negatively affects educational concerns in all three levels of the digital communication. Therefore, the balance of burdens moves a little toward corporations and correspondingly, the benefits of a more reliable fair use and more accessible public domain increase for educators and students.

United States v. Elcomsoft and Dmitry Skylarof

Case Summary

First of all, court records are not yet available for this case from the Ninth Circuit Court of California. All information in this summary and the following court opinion discussion has been gleaned from online sources.

In 2001, Russian graduate student and ElcomSoft company computer programmer, Dmitry Skylarof, was arrested for promoting software he developed that allowed users to print and make copies of books licensed for use on the Adobe Acrobat eBook Reader Software. Skylarof was jailed for several weeks until prosecutors offered to release him in exchange for testimony against his company (Bowman). On December 17th, both Skylarof and ElcomSoft were acquitted of all charges, which included circumvention infringement and for marketing tools used for circumvention ("US v. ElcomSoft & Skylarof FAQ").

Court's Decision

This was a jury trial, and therefore, no judicial opinion exists. However, in an interview, jury foreman Dennis Strader claimed that the jury was impressed with the defense's fair use argument. ElcomSoft and Skylarof's attorneys argued that users who buy the eBook Reader should be able to print and make copies (prevented by Adobe's code protection) of work that becomes theirs through the purchase of the Adobe software under the fair use provision ("IT Firm Cleared in Copyright Case").

Strader also said that the jury did not believe that either Skylarof or ElcomSoft intended to infringe on copyright. He explains:

> "We [the jury] didn't understand why a million-dollar company would put on their Web page an illegal thing that would (ruin) their whole business if they were caught. . ." Strader added that the panel found the DMCA itself confusing, making it easy for jurors to believe that executives from Russia might not fully understand it [the DMCA]. (Bowman)

Discussion

This case illustrates an advance in technology that controls fair use, if a user buys software that is licensed to access certain protected works. This could bode ill for education if software companies obtain licenses to increasing numbers of educational works for dissemination to students and faculty. These software companies could feasibly charge a per copy fee for printing or copying, increasing the burden on academics. The arrest of Dmitry Skylarof also discourages international creative digital works from making it into U.S. markets, which could impede technological progress and hinder foreign and U.S. collaboration in the research and development of improved software designs. Fortunately the jury in the case considered both fair use and intent in deciding for the defendants.

Although the jury found the defendants innocent, Adobe's action of bringing the suit is ominous. Not only did the company intend to circumvent fair use by means of anti-circumvention devices, they also tested the new criminal punishments put in place by the DMCA. Elcomsoft could have been fined as much as $2 million and Skylarof could have been given additional jail time ("IT Firm Cleared in Copyright Case"). If a company like Adobe appeals to a non-juried court, the decision might not have considered Skylarof and ElcomSoft's probable ignorance of as grounds for dismissal of charges. Ignorance of the law may be a strong emotional appeal to a jury, but it is not a reliable defense to judges. Because the most important precedent-setting decisions occur at the non-juried state supreme and U.S. Supreme Court levels, this decision does little for education. The fact that Skylarof was arrested and detained at all is disturbing in that it underscores power of the new criminal charges defined by the DMCA. Where the balance shifts in this case is unclear.

Summary of Case Activity and Court Decisions

The preceding cases indicate two significant trends for educators and students. First of all the DMCA is not as impregnable as the Chapter 4 analysis would suggest. Fair use is still alive and well-considered in some cases such as *Kelly v. Arriba* and *United States v. Elcomsoft and Dmitry Skylarof*, despite its absence in the DMCA. On the other hand, in other cases where academic concerns are directly at stake, such as the Felten case, the fair use provision is not applied by the courts. Also, the anti-circumvention and CMI anti-alteration provisions are not always strictly enforced. In *DVD Copy Control Association v. Andrew Brunner* and the Skylarof cases, circumvention was allowed—in the first case because of potential infringement on free speech; in the second because of fair use considerations and lack of intent to infringe. What these cases indicate is that the DMCA is unevenly applied by the courts, even though it is also clear that control at all levels has increased and simultaneously, the burdens have shifted toward academic authors and audiences.

The second trend is the rush by corporate and individual author/owners to claim the remaining bits of the public commons present in the code and content layers of the digital environment. To use the previous cases as examples, Adobe creates and markets software to eliminate fair use considerations, and individual owners like Leslie Kelly and Jonathon Tasini attempt to claim profit from databases. Perhaps the balance of benefits and burdens will be determined by the way these two trends dictated by court decisions and corporate greed play out. Hopefully, the court will consider the constitutional mandate for equal benefits to both owners and audiences.

The Felten case indicates another possible trend and that is the willingness of corporate concerns, demonstrated by SDMI and RIAA, to challenge a basic academic freedom—the right to publish and present research. Even though the case was dismissed, we should shine a light on any future challenges to this right, as the power of these two powerful organizations was mitigated by the fear of public castigation.

Lawrence Lessig's sees powerful organizations like RIAA and SDMI only becoming more controlling of the digital realm. His book, *The Future of Ideas: the Fate of the Commons in a Connected World,* does not hold out hope for a democratic, interactive, and innovative digital environment in the future. He believes that, "The opportunity to innovate outside of the dominant players has again evaporated" (266). He claims that individuals and small companies will soon be squeezed out as dominant players like Microsoft gain increasingly more control of the digital public commons.

To construct a model of copyright laws that privileges not only players like Microsoft, but also that is equitable to all stakeholders, we should review Herbert Morris advice that a fair system should have "a mechanism designed to prevent a maldistribution in the benefits and burdens" (322). Although his article refers to the creation of a system of punishment, rather than the creation of a system of law, because both systems are symbiotic, fairness must be the guiding principle in both. In expanding upon the idea of fairness in law, Morris argues that legal system must interfere only when necessary because:

> The primary function of the system of rules [in the United States] was to provide individuals with a sphere of interest immune from interference. Given this goal, it is determined to be a greater evil for society to interfere

> unjustifiably with an individual by depriving him of good than for the society to fail to punish those that have unjustifiable interfered. (323)

What this means for copyright law is that academic "spheres of interest" should be free from interference, as academic goals are ultimately beneficial to society. A system of copyright laws that protect both academic and corporate interests should include specific and irrevocable laws prescribing a reliable fair use provision, a stable public commons, and a protected academic right to publish and present as the mechanisms that prevent the "maldistribution of benefits and burdens." Unfortunately, the commons, at this point, is not only affected by the DMCA regulations, it has also been diminished by the CTEA's addition of twenty more years to the term of copyright.

All the same, I am hopeful when I read about organizational protests like those of CCCC's Intellectual Property Caucus and NCTE's consistent lobbying of Congress for copyright laws that advantage, instead of disadvantaging education. I am also hopeful when observing academics like Lawrence Lessig, Yochai Benkler, and Jessica Litman (all academics) write books and articles about the unfairness of the DMCA. Despite these hopeful signs, a subtle and insidious erosion of academic freedoms with regard to digital copyright seems to be occurring with little fanfare. To make any change in the law, we have to be active in encouraging those in power to consider the importance of education's stake in digital communication. Digital communication delivery systems are the future of education, and consistent flow of innovation and collaboration on these systems ensures that we remain vibrant in our profession.

APPENDIX I

THE DIGITAL MILLENNIUM COPYRIGHT ACT OF 1998
U.S. Copyright Office Summary

December 1998

INTRODUCTION

The Digital Millennium Copyright Act (DMCA)[1] was signed into law by President Clinton on October 28, 1998. The legislation implements two 1996 World Intellectual Property Organization (WIPO) treaties: the WIPO Copyright Treaty and the WIPO Performances and Phonograms Treaty. The DMCA also addresses a number of other significant copyright-related issues.

The DMCA is divided into five titles:

- Title I, the "**WIPO Copyright and Performances and Phonograms Treaties Implementation Act of 1998**," implements the WIPO treaties.
- Title II, the "**Online Copyright Infringement Liability Limitation Act**," creates limitations on the liability of online service providers for copyright infringement when engaging in certain types of activities.
- Title III, the "**Computer Maintenance Competition Assurance Act**," creates an exemption for making a copy of a computer program by activating a computer for purposes of maintenance or repair.
- Title IV contains six **miscellaneous provisions**, relating to the functions of the Copyright Office, distance education, the exceptions in the Copyright Act for libraries and for making ephemeral recordings, "webcasting" of sound recordings on the Internet, and the applicability of collective bargaining agreement obligations in the case of transfers of rights in motion pictures.
- Title V, the "**Vessel Hull Design Protection Act**," creates a new form of protection for the design of vessel hulls.

This memorandum summarizes briefly each title of the DMCA. It provides merely an overview of the law's provisions; for purposes of length and readability a significant amount of detail has been omitted. **A complete understanding of any provision of the DMCA requires reference to the text of the legislation itself.**

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[1]Pub. L. No. 105-304, 112 Stat. 2860 (Oct. 28, 1998).

TITLE I: WIPO TREATY IMPLEMENTATION

Title I implements the WIPO treaties. First, it makes certain technical amendments to U.S. law, in order to provide appropriate references and links to the treaties. Second, it creates two new prohibitions in Title 17 of the U.S. Code—one on circumvention of technological measures used by copyright owners to protect their works and one on tampering with copyright management information—and adds civil remedies and criminal penalties for violating the prohibitions. In addition, Title I requires the U.S. Copyright Office to perform two joint studies with the National Telecommunications and Information Administration of the Department of Commerce (NTIA).

Technical Amendments

National Eligibility

The WIPO Copyright Treaty (WCT) and the WIPO Performances and Phonograms Treaty (WPPT) each require member countries to provide protection to certain works from other member countries or created by nationals of other member countries. That protection must be no less favorable than that accorded to domestic works.

Section 104 of the Copyright Act establishes the conditions of eligibility for protection under U.S. law for works from other countries. Section 102(b) of the DMCA amends section 104 of the Copyright Act and adds new definitions to section 101 of the Copyright Act in order to extend the protection of U.S. law to those works required to be protected under the WCT and the WPPT.

Restoration of Copyright Protection

Both treaties require parties to protect preexisting works from other member countries that have not fallen into the public domain in the country of origin through the expiry of the term of protection. A similar obligation is contained in both the Berne Convention and the TRIPS Agreement. In 1995 this obligation was implemented in the Uruguay Round Agreements Act, creating a new section 104A in the Copyright Act to restore protection to works from Berne or WTO member countries that are still protected in the country of origin, but fell into the public domain in the United States in the past because of a failure to comply with formalities that then existed in U.S. law, or due to a lack of treaty relations. Section 102(c) of the DMCA

Registration as a Prerequisite to Suit

The remaining technical amendment relates to the prohibition in both treaties against conditioning the exercise or enjoyment of rights on the fulfillment of formalities. Section 411(a) of the Copyright Act requires claims to copyright to be registered with the Copyright Office before a lawsuit can be initiated by the copyright owner, but exempts many foreign works in order to comply with existing treaty obligations under the Berne Convention. Section 102(d) of the DMCA amends section 411(a) by broadening the exemption to cover all foreign works.

Technological Protection and Copyright Management Systems

Each of the WIPO treaties contains virtually identical language obligating member states to prevent circumvention of technological measures used to protect copyrighted works, and to prevent tampering with the integrity of copyright management information. These obligations serve as technological adjuncts to the exclusive rights granted by copyright law. They provide legal protection that the international copyright community deemed critical to the safe and efficient exploitation of works on digital networks.

Circumvention of Technological Protection Measures

General approach

Article 11 of the WCT states:

> Contracting Parties shall provide adequate legal protection and effective legal remedies against the circumvention of effective technological measures that are used by authors in connection with the exercise of their rights under this Treaty or the Berne Convention and that restrict acts, in respect of their works, which are not authorized by the authors concerned or permitted by law.

Article 18 of the WPPT contains nearly identical language.

Section 103 of the DMCA adds a new chapter 12 to Title 17 of the U.S. Code. New section 1201 implements the obligation to provide adequate and effective protection against circumvention of technological measures used by copyright owners to protect their works.

Section 1201 divides technological measures into two categories: measures that prevent unauthorized *access* to a copyrighted work and measures that prevent

unauthorized *copying*[2] of a copyrighted work. Making or selling devices or services that are used to circumvent either category of technological measure is prohibited in certain circumstances, described below. As to the act of circumvention in itself, the provision prohibits circumventing the first category of technological measures, but not the second.

This distinction was employed to assure that the public will have the continued ability to make fair use of copyrighted works. Since copying of a work may be a fair use under appropriate circumstances, section 1201 does not prohibit the act of circumventing a technological measure that prevents copying. By contrast, since the fair use doctrine is not a defense to the act of gaining unauthorized access to a work, the act of circumventing a technological measure in order to gain access is prohibited.

Section 1201 proscribes devices or services that fall within any one of the following three categories:

- they are primarily designed or produced to circumvent;
- they have only limited commercially significant purpose or use other than to circumvent; or
- they are marketed for use in circumventing.

No mandate

Section 1201 contains language clarifying that the prohibition on circumvention devices does not require manufacturers of consumer electronics, telecommunications or computing equipment to design their products affirmatively to respond to any particular technological measure. (Section 1201(c)(3)). Despite this general 'no mandate' rule, section 1201(k) does mandate an affirmative response for one particular type of technology: within 18 months of enactment, all analog videocassette recorders must be designed to conform to certain defined technologies, commonly known as Macrovision, currently in use for preventing unauthorized copying of analog videocassettes and certain analog signals. The provision prohibits rightholders from applying these specified technologies to free television and basic and extended basic tier cable broadcasts.

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[2]"Copying" is used in this context as a short-hand for the exercise of any of the exclusive rights of an author under section 106 of the Copyright Act. Consequently, a technological measure that prevents unauthorized distribution or public performance of a work would fall in this second category.

Savings clauses

Section 1201 contains two general savings clauses. First, section 1201(c)(1) states that nothing in section 1201 affects rights, remedies, limitations or defenses to copyright infringement, including fair use. Second, section 1201(c)(2) states that nothing in section 1201 enlarges or diminishes vicarious or contributory copyright infringement.

Exceptions

Finally, the prohibitions contained in section 1201 are subject to a number of exceptions. One is an exception to the operation of the entire section, for law enforcement, intelligence and other governmental activities. (Section 1201(e)). The others relate to section 1201(a), the provision dealing with the category of technological measures that control access to works.

The broadest of these exceptions, section 1201(a)(1)(B)-(E), establishes an ongoing administrative rule-making proceeding to evaluate the impact of the prohibition against the act of circumventing such access-control measures. This conduct prohibition does not take effect for two years. Once it does, it is subject to an exception for users of a work which is in a particular class of works if they are or are likely to be adversely affected by virtue of the prohibition in making noninfringing uses. The applicability of the exemption is determined through a periodic rulemaking by the Librarian of Congress, on the recommendation of the Register of Copyrights, who is to consult with the Assistant Secretary of Commerce for Communications and Information.

The six additional exceptions are as follows:

1. ***Nonprofit library, archive and educational institution exception*** (section 1201(d)). The prohibition on the act of circumvention of access control measures is subject to an exception that permits nonprofit libraries, archives and educational institutions to circumvent solely for the purpose of making a good faith determination as to whether they wish to obtain authorized access to the work.
2. ***Reverse engineering*** (section 1201(f)). This exception permits circumvention, and the development of technological means for such circumvention, by a person who has lawfully obtained a right to use a copy of a computer program for the sole purpose of identifying and analyzing elements of the program necessary to achieve interoperability with other programs, to the extent that such acts are permitted under copyright law.
3. ***Encryption research*** (section 1201(g)). An exception for encryption research permits circumvention of access control measures, and the

development of the technological means to do so, in order to identify flaws and vulnerabilities of encryption technologies.

4. ***Protection of minors*** (section 1201(h)). This exception allows a court applying the prohibition to a component or part to consider the necessity for its incorporation in technology that prevents access of minors to material on the Internet.
5. ***Personal privacy*** (section 1201(i)). This exception permits circumvention when the technological measure, or the work it protects, is capable of collecting or disseminating personally identifying information about the online activities of a natural person.
6. ***Security testing*** (section 1201(j)). This exception permits circumvention of access control measures, and the development of technological means for such circumvention, for the purpose of testing the security of a computer, computer system or computer network, with the authorization of its owner or operator.

Each of the exceptions has its own set of conditions on its applicability, which are beyond the scope of this summary.

Integrity of Copyright Management Information

Article 12 of the WCT provides in relevant part:

> Contracting Parties shall provide adequate and effective legal remedies against any person knowingly performing any of the following acts knowing, or with respect to civil remedies having reasonable grounds to know, that it will induce, enable, facilitate or conceal an infringement of any right covered by this Treaty or the Berne Convention:
>
> (i) to remove or alter any electronic rights management information without authority;
>
> (ii) to distribute, import for distribution, broadcast or communicate to the public, without authority, works or copies of works knowing that electronic rights management information has been removed or altered without authority.

Article 19 of the WPPT contains nearly identical language.

New section 1202 is the provision implementing this obligation to protect the integrity of copyright management information (CMI). The scope of the protection

is set out in two separate paragraphs, the first dealing with false CMI and the second with removal or alteration of CMI. Subsection (a) prohibits the knowing provision or distribution of false CMI, if done with the intent to induce, enable, facilitate or conceal infringement. Subsection (b) bars the intentional removal or alteration of CMI without authority, as well as the dissemination of CMI or copies of works, knowing that the CMI has been removed or altered without authority. Liability under subsection (b) requires that the act be done with knowledge or, with respect to civil remedies, with reasonable grounds to know that it will induce, enable, facilitate or conceal an infringement.

Subsection (c) defines CMI as identifying information about the work, the author, the copyright owner, and in certain cases, the performer, writer or director of the work, as well as the terms and conditions for use of the work, and such other information as the Register of Copyrights may prescribe by regulation. Information concerning users of works is explicitly excluded.

Section 1202 is subject to a general exemption for law enforcement, intelligence and other governmental activities. (Section 1202(d)). It also contains limitations on the liability of broadcast stations and cable systems for removal or alteration of CMI in certain circumstances where there is no intent to induce, enable, facilitate or conceal an infringement. (Section 1202(e)).

Remedies

Any person injured by a violation of section 1201 or 1202 may bring a civil action in Federal court. Section 1203 gives courts the power to grant a range of equitable and monetary remedies similar to those available under the Copyright Act, including statutory damages. The court has discretion to reduce or remit damages in cases of innocent violations, where the violator proves that it was not aware and had no reason to believe its acts constituted a violation. (Section 1203(c)(5)(A)). Special protection is given to nonprofit libraries, archives and educational institutions, which are entitled to a complete remission of damages in these circumstances. (Section 1203(c)(5)(B)).

In addition, it is a criminal offense to violate section 1201 or 1202 wilfully and for purposes of commercial advantage or private financial gain. Under section 1204 penalties range up to a $500,000 fine or up to five years imprisonment for a first offense, and up to a $1,000,000 fine or up to 10 years imprisonment for subsequent offenses. Nonprofit libraries, archives and educational institutions are entirely exempted from criminal liability. (Section 1204(b)).

Copyright Office and NTIA Studies Relating to Technological Development

Title I of the DMCA requires the Copyright Office to conduct two studies jointly with NTIA, one dealing with encryption and the other with the effect of technological developments on two existing exceptions in the Copyright Act. New section 1201(g)(5) of Title 17 of the U.S. Code requires the Register of Copyrights and the Assistant Secretary of Commerce for Communications and Information to report to the Congress no later than one year from enactment on the effect that the exemption for encryption research (new section 1201(g)) has had on encryption research, the development of encryption technology, the adequacy and effectiveness of technological measures designed to protect copyrighted works, and the protection of copyright owners against unauthorized access to their encrypted copyrighted works.

Section 104 of the DMCA requires the Register of Copyrights and the Assistant Secretary of Commerce for Communications and Information to jointly evaluate (1) the effects of Title I of the DMCA and the development of electronic commerce and associated technology on the operation of sections 109 (first sale doctrine) and 117 (exemption allowing owners of copies of computer programs to reproduce and adapt them for use on a computer), and (2) the relationship between existing and emergent technology and the operation of those sections. This study is due 24 months after the date of enactment of the DMCA.

TITLE II: ONLINE COPYRIGHT INFRINGEMENT LIABILITY LIMITATION

Title II of the DMCA adds a new section 512 to the Copyright Act[3] to create four new limitations on liability for copyright infringement by online service providers. The limitations are based on the following four categories of conduct by a service provider:

1. Transitory communications;
2. System caching;
3. Storage of information on systems or networks at direction of users; and
4. Information location tools.

New section 512 also includes special rules concerning the application of these limitations to nonprofit educational institutions.

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[3]The Fairness in Musical Licensing Act, Title II of Pub. L. No. 105-298, 112 Stat. 2827, 2830-34 (Oct. 27, 1998) also adds a new section 512 to the Copyright Act. This duplication of section numbers will need to be corrected in a technical amendments bill.

Each limitation entails a complete bar on monetary damages, and restricts the availability of injunctive relief in various respects. (Section 512(j)). Each limitation relates to a separate and distinct function, and a determination of whether a service provider qualifies for one of the limitations does not bear upon a determination of whether the provider qualifies for any of the other three. (Section 512(n)).

The failure of a service provider to qualify for any of the limitations in section 512 does not necessarily make it liable for copyright infringement. The copyright owner must still demonstrate that the provider has infringed, and the provider may still avail itself of any of the defenses, such as fair use, that are available to copyright defendants generally. (Section 512(l)).

In addition to limiting the liability of service providers, Title II establishes a procedure by which a copyright owner can obtain a subpoena from a federal court ordering a service provider to disclose the identity of a subscriber who is allegedly engaging in infringing activities. (Section 512(h)).

Section 512 also contains a provision to ensure that service providers are not placed in the position of choosing between limitations on liability on the one hand and preserving the privacy of their subscribers, on the other. Subsection (m) explicitly states that nothing in section 512 requires a service provider to monitor its service or access material in violation of law (such as the Electronic Communications Privacy Act) in order to be eligible for any of the liability limitations.

Eligibility for Limitations Generally

A party seeking the benefit of the limitations on liability in Title II must qualify as a "service provider." For purposes of the first limitation, relating to transitory communications, "service provider" is defined in section 512(k)(1)(A) as "an entity offering the transmission, routing, or providing of connections for digital online communications, between or among points specified by a user, of material of the user's choosing, without modification to the content of the material as sent or received." For purposes of the other three limitations, "service provider" is more broadly defined in section 512(k)(l)(B) as "a provider of online services or network access, or the operator of facilities therefor."

In addition, to be eligible for any of the limitations, a service provider must meet two overall conditions: (1) it must adopt and reasonably implement a policy of terminating in appropriate circumstances the accounts of subscribers who are repeat infringers; and (2) it must accommodate and not interfere with "standard technical measures." (Section 512(i)). "Standard technical measures" are defined as measures that copyright owners use to identify or protect copyrighted works, that have been developed pursuant to a broad consensus of copyright owners and service providers in an open, fair and voluntary multi-industry process, are available to anyone on

reasonable nondiscriminatory terms, and do not impose substantial costs or burdens on service providers.

Limitation for Transitory Communications

In general terms, section 512(a) limits the liability of service providers in circumstances where the provider merely acts as a data conduit, transmitting digital information from one point on a network to another at someone else's request. This limitation covers acts of transmission, routing, or providing connections for the information, as well as the intermediate and transient copies that are made automatically in the operation of a network.

In order to qualify for this limitation, the service provider's activities must meet the following conditions:

- The transmission must be initiated by a person other than the provider.
- The transmission, routing, provision of connections, or copying must be carried out by an automatic technical process without selection of material by the service provider.
- The service provider must not determine the recipients of the material.
- Any intermediate copies must not ordinarily be accessible to anyone other than anticipated recipients, and must not be retained for longer than reasonably necessary.
- The material must be transmitted with no modification to its content.

Limitation for System Caching

Section 512(b) limits the liability of service providers for the practice of retaining copies, for a limited time, of material that has been made available online by a person other than the provider, and then transmitted to a subscriber at his or her direction. The service provider retains the material so that subsequent requests for the same material can be fulfilled by transmitting the retained copy, rather than retrieving the material from the original source on the network.

The benefit of this practice is that it reduces the service provider's bandwidth requirements and reduces the waiting time on subsequent requests for the same information. On the other hand, it can result in the delivery of outdated information to subscribers and can deprive website operators of accurate "hit" information — information about the number of requests for particular material on a website — from which advertising revenue is frequently calculated. For this reason, the person making the material available online may establish rules about updating it, and may utilize technological means to track the number of "hits."

The limitation applies to acts of intermediate and temporary storage, when carried out through an automatic technical process for the purpose of making the material available to subscribers who subsequently request it. It is subject to the following conditions:

- The content of the retained material must not be modified.
- The provider must comply with rules about "refreshing" material—replacing retained copies of material with material from the original location— when specified in accordance with a generally accepted industry standard data communication protocol.
- The provider must not interfere with technology that returns "hit" information to the person who posted the material, where such technology meets certain requirements.
- The provider must limit users' access to the material in accordance with conditions on access (e.g., password protection) imposed by the person who posted the material.
- Any material that was posted without the copyright owner's authorization must be removed or blocked promptly once the service provider has been notified that it has been removed, blocked, or ordered to be removed or blocked, at the originating site.

Limitation for Information Residing on Systems or Networks at the Direction of Users

Section 512(c) limits the liability of service providers for infringing material on websites (or other information repositories) hosted on their systems. It applies to storage at the direction of a user. In order to be eligible for the limitation, the following conditions must be met:

- The provider must not have the requisite level of knowledge of the infringing activity, as described below.
- If the provider has the right and ability to control the infringing activity, it must not receive a financial benefit directly attributable to the infringing activity.
- Upon receiving proper notification of claimed infringement, the provider must expeditiously take down or block access to the material.

In addition, a service provider must have filed with the Copyright Office a designation of an agent to receive notifications of claimed infringement. The Office provides a suggested form for the purpose of designating an agent (http://www.loc.gov/copyright/onlinesp/) and maintains a list of agents on the Copyright Office website (http://www.loc.gov/copyright/onlinesp/list/).

Under the knowledge standard, a service provider is eligible for the limitation on liability only if it does not have actual knowledge of the infringement, is not aware of facts or circumstances from which infringing activity is apparent, or upon gaining such knowledge or awareness, responds expeditiously to take the material down or block access to it.

The statute also establishes procedures for proper notification, and rules as to its effect. (Section 512(c)(3)). Under the notice and takedown procedure, a copyright owner submits a notification under penalty of perjury, including a list of specified elements, to the service provider's designated agent. Failure to comply substantially with the statutory requirements means that the notification will not be considered in determining the requisite level of knowledge by the service provider. If, upon receiving a proper notification, the service provider promptly removes or blocks access to the material identified in the notification, the provider is exempt from monetary liability. In addition, the provider is protected from any liability to any person for claims based on its having taken down the material. (Section 512(g)(1)).

In order to protect against the possibility of erroneous or fraudulent notifications, certain safeguards are built into section 512. Subsection (g)(1) gives the subscriber the opportunity to respond to the notice and takedown by filing a counter notification. In order to qualify for the protection against liability for taking down material, the service provider must promptly notify the subscriber that it has removed or disabled access to the material. If the subscriber serves a counter notification complying with statutory requirements, including a statement under penalty of perjury that the material was removed or disabled through mistake or misidentification, then unless the copyright owner files an action seeking a court order against the subscriber, the service provider must put the material back up within 10-14 business days after receiving the counter notification.

Penalties are provided for knowing material misrepresentations in either a notice or a counter notice. Any person who knowingly materially misrepresents that material is infringing, or that it was removed or blocked through mistake or misidentification, is liable for any resulting damages (including costs and attorneys' fees) incurred by the alleged infringer, the copyright owner or its licensee, or the service provider. (Section 512(f)).

Limitation for Information Location Tools

Section 512(d) relates to hyperlinks, online directories, search engines and the like. It limits liability for the acts of referring or linking users to a site that contains infringing material by using such information location tools, if the following conditions are met:

- The provider must not have the requisite level of knowledge that the material is infringing. The knowledge standard is the same as under the limitation for information residing on systems or networks.
- If the provider has the right and ability to control the infringing activity, the provider must not receive a financial benefit directly attributable to the activity.
- Upon receiving a notification of claimed infringement, the provider must expeditiously take down or block access to the material.

These are essentially the same conditions that apply under the previous limitation, with some differences in the notification requirements. The provisions establishing safeguards against the possibility of erroneous or fraudulent notifications, as discussed above, as well as those protecting the provider against claims based on having taken down the material apply to this limitation. (Sections 512(f)-(g)).

Special Rules Regarding Liability of Nonprofit Educational Institutions

Section 512(e) determines when the actions or knowledge of a faculty member or graduate student employee who is performing a teaching or research function may affect the eligibility of a nonprofit educational institution for one of the four limitations on liability. As to the limitations for transitory communications or system caching, the faculty member or student shall be considered a "person other than the provider," so as to avoid disqualifying the institution from eligibility. As to the other limitations, the knowledge or awareness of the faculty member or student will not be attributed to the institution. The following conditions must be met:

- the faculty member or graduate student's infringing activities do not involve providing online access to course materials that were required or recommended during the past three years;
- the institution has not received more than two notifications over the past three years that the faculty member or graduate student was infringing; and
- the institution provides all of its users with informational materials describing and promoting compliance with copyright law.

TITLE III: COMPUTER MAINTENANCE OR REPAIR

Title III expands the existing exemption relating to computer programs in section 117 of the Copyright Act, which allows the owner of a copy of a program to make reproductions or adaptations when necessary to use the program in conjunction with a computer. The amendment permits the owner or lessee of a computer to make or authorize the making of a copy of a computer program in the course of maintaining or repairing that computer. The exemption only permits a copy that is made automatically when a computer is activated, and only if the computer already lawfully

contains an authorized copy of the program. The new copy cannot be used in any other manner and must be destroyed immediately after the maintenance or repair is completed.

TITLE IV: MISCELLANEOUS PROVISIONS

Clarification of the Authority of the Copyright Office

Section 401(b), adds language to section 701 of the Copyright Act confirming the Copyright Office's authority to continue to perform the policy and international functions that it has carried out for decades under its existing general authority.

Ephemeral Recordings for Broadcasters

Section 112 of the Copyright Act grants an exemption for the making of "ephemeral recordings." These are recordings made in order to facilitate a transmission. Under this exemption, for example, a radio station can record a set of songs and broadcast from the new recording rather than from the original CDs (which would have to be changed "on the fly" during the course of a broadcast).

As it existed prior to enactment of the DMCA, section 112 permitted a transmitting organization to make and retain for up to six months (hence the term "ephemeral") no more than one copy of a work if it was entitled to transmit a public performance or display of the work, either under a license or by virtue of the fact that there is no general public performance right in sound recordings (as distinguished from musical works).

The Digital Performance Right in Sound Recordings Act of 1995 (DPRA) created, for the first time in U.S. copyright law, a limited public performance right in sound recordings. The right only covers public performances by means of digital transmission and is subject to an exemption for digital broadcasts (i.e., transmissions by FCC licensed terrestrial broadcast stations) and a statutory license for certain subscription transmissions that are not made on demand (i.e. in response to the specific request of a recipient).

Section 402 of the DMCA expands the section 112 exemption to include recordings that are made to facilitate the digital transmission of a sound recording where the transmission is made under the DPRA's exemption for digital broadcasts or statutory license. As amended, section 112 also permits in some circumstances the circumvention of access control technologies in order to enable an organization to make an ephemeral recording.

Distance Education Study

In the course of consideration of the DMCA, legislators expressed an interest in amending the Copyright Act to promote distance education, possibly through an expansion of the existing exception for instructional broadcasting in section 110(2). Section 403 of the DMCA directs the Copyright Office to consult with affected parties and make recommendations to Congress on how to promote distance education through digital technologies. The Office must report to Congress within six months of enactment.

The Copyright Office is directed to consider the following issues:

- The need for a new exemption;
- Categories of works to be included in any exemption;
- Appropriate quantitative limitations on the portions of works that may be used under any exemption;
- Which parties should be eligible for any exemption;
- Which parties should be eligible recipients of distance education material under any exemption;
- The extent to which use of technological protection measures should be mandated as a condition of eligibility for any exemption;
- The extent to which the availability of licenses should be considered in assessing eligibility for any exemption; and
- Other issues as appropriate.

Exemption for Nonprofit Libraries and Archives

Section 404 of the DMCA amends the exemption for nonprofit libraries and archives in section 108 of the Copyright Act to accommodate digital technologies and evolving preservation practices. Prior to enactment of the DMCA, section 108 permitted such libraries and archives to make a single facsimile (i.e., not digital) copy of a work for purposes of preservation or interlibrary loan. As amended, section 108 permits up to three copies, which may be digital, provided that digital copies are not made available to the public outside the library premises. In addition, the amended section permits such a library or archive to copy a work into a new format if the original format becomes obsolete—that is, the machine or device used to render the work perceptible is no longer manufactured or is no longer reasonably available in the commercial marketplace.

Webcasting Amendments to the Digital Performance Right in Sound Recordings

As discussed above, in 1995 Congress enacted the DPRA, creating a performance right in sound recordings that is limited to digital transmissions. Under

that legislation, three categories of digital transmissions were addressed: broadcast transmissions, which were exempted from the performance right; subscription transmissions, which were generally subject to a statutory license; and on-demand transmissions, which were subject to the full exclusive right. Broadcast transmissions under the DPRA are transmissions made by FCC-licensed terrestrial broadcast stations.

In the past several years, a number of entities have begun making digital transmissions of sound recordings over the Internet using streaming audio technologies. This activity does not fall squarely within any of the three categories that were addressed in the DPRA. Section 405 of the DMCA amends the DPRA, expanding the statutory license for subscription transmissions to include webcasting as a new category of "eligible nonsubscription transmissions."

In addition to expanding the scope of the statutory license, the DMCA revises the criteria that any entity must meet in order to be eligible for the license (other than those who are subject to a grandfather clause, leaving the existing criteria intact). It revises the considerations for setting rates as well (again, subject to a grandfather clause), directing arbitration panels convened under the law to set the royalty rates at fair market value.

This provision of the DMCA also creates a new statutory license for making ephemeral recordings. As indicated above, section 402 of the DMCA amends section 112 of the Copyright Act to permit the making of a single ephemeral recording to facilitate the digital transmission of sound recording that is permitted either under the DPRA's broadcasting exemption or statutory license. Transmitting organizations that wish to make more than the single ephemeral recording of a sound recording that is permitted under the outright exemption in section 112 are now eligible for a statutory license to make such additional ephemeral recordings. In addition, the new statutory license applies to the making of ephemeral recordings by transmitting organizations other than broadcasters who are exempt from the digital performance right, who are not covered by the expanded exemption in section 402 of the DMCA.

Assumption of Contractual Obligations upon Transfers of Rights in Motion Pictures

Section 416 addresses concerns about the ability of writers, directors and screen actors to obtain residual payments for the exploitation of motion pictures in situations where the producer is no longer able to make these payments. The guilds' collective bargaining agreements currently require producers to obtain assumption agreements from distributors in certain circumstances, by which the distributor assumes the producer's obligation to make such residual payments. Some production companies apparently do not always do so, leaving the guilds without contractual privity enabling them to seek recourse from the distributor.

The DMCA adds a new chapter to Title 28 of the U.S. Code that imposes on transferees those obligations to make residual payments that the producer would be required to have the transferee assume under the relevant collective bargaining agreement. The obligations attach only if the distributor knew or had reason to know that the motion picture was produced subject to a collective bargaining agreement, or in the event of a court order confirming an arbitration award under the collective bargaining agreement that the producer cannot satisfy within ninety days. There are two classes of transfers that are excluded from the scope of this provision. The first is transfers limited to public performance rights, and the second is grants of security interests, along with any subsequent transfers from the security interest holder.

The provision also directs the Comptroller General, in consultation with the Register of Copyrights, to conduct a study on the conditions in the motion picture industry that gave rise to this provision, and the impact of the provision on the industry. The study is due two years from enactment.

TITLE V: PROTECTION OF CERTAIN ORIGINAL DESIGNS

Title V of the DMCA, entitled the Vessel Hull Design Protection Act (VHDPA), adds a new chapter 13 to Title 17 of the U.S. Code. It creates a new system for protecting original designs of certain useful articles that make the article attractive or distinctive in appearance. For purposes of the VHDPA, "useful articles" are limited to the hulls (including the decks) of vessels no longer than 200 feet.

A design is protected under the VHDPA as soon as a useful article embodying the design is made public or a registration for the design is published. Protection is lost if an application for registration is not made within two years after a design is first made public, but a design is not registrable if it has been made public more than one year before the date of the application for registration. Once registered, protection continues for ten years from the date protection begins.

The VHDPA is subject to a legislative sunset: the Act expires two years from enactment (October 28, 2000). The Copyright Office is directed to conduct two joint studies with the Patent and Trademark Office—the first by October 28, 1999 and the second by October 28, 2000—evaluating the impact of the VHDPA.

EFFECTIVE DATES

Most provisions of the DMCA are effective on the date of enactment. There are, however, several exceptions. The technical amendments in Title I that relate to eligibility of works for protection under U.S. copyright law by virtue of the new WIPO treaties do not take effect until the relevant treaty comes into force. Similarly, restoration of copyright protection for such works does not become effective until the relevant treaty comes into force. The prohibition on the act of circumvention of access

control measures does not take effect until two years from enactment (October 28, 2000).

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APPENDIX II

107TH CONGRESS
1ST SESSION

S. 487

AN ACT

To amend chapter 1 of title 17, United States Code, relating to the exemption of certain performances or displays for educational uses from copyright infringement provisions, to provide that the making of copies or phonorecords of such performances or displays is not an infringement under certain circumstances, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. EDUCATIONAL USE COPYRIGHT EXEMPTION.

(a) SHORT TITLE.—This Act may be cited as the "Technology, Education, and Copyright Harmonization Act of 2001".

(b) EXEMPTION OF CERTAIN PERFORMANCES AND DISPLAYS FOR EDUCATIONAL USES.—Section 110 of title 17, United States Code, is amended—

(1) by striking paragraph (2) and inserting the following:

"(2) except with respect to a work produced or marketed primarily for performance or display as part of mediated instructional activities transmitted via digital networks, or a performance or display that is given by means of a copy or phonorecord that is not lawfully made and acquired under this title, and the transmitting government body or accredited nonprofit educational institution knew or had reason to believe was not lawfully made and acquired, the performance of a nondramatic literary or musical work or reasonable and limited portions of any other work, or display of a work in an amount comparable to that which is typically displayed in the course of a live classroom session, by or in the course of a transmission, if—

"(A) the performance or display is made by, at the direction of, or under the actual supervision of an instructor as an integral part of a class session offered as a regular part of the systematic mediated instructional activities of a

governmental body or an accredited nonprofit educational institution;

"(B) the performance or display is directly related and of material assistance to the teaching content of the transmission;

"(C) the transmission is made solely for, and, to the extent technologically feasible, the reception of such transmission is limited to—

"(i) students officially enrolled in the course for which the transmission is made; or

"(ii) officers or employees of governmental bodies as a part of their official duties or employment; and

"(D) the transmitting body or institution—

"(i) institutes policies regarding copyright, provides informational materials to faculty, students, and relevant staff members that accurately describe, and promote compliance with, the laws of the United States relating to copyright, and provides notice to students that materials used in connection with the course may be subject to copyright protection; and

"(ii) in the case of digital transmissions—

"(I) applies technological measures that reasonably prevent—

"(aa) retention of the work in accessible form by recipients of the transmission from the transmitting body or institution for longer than the class session; and

"(bb) unauthorized further dissemination of the work in accessible form by such recipients to others; and

"(II) does not engage in conduct that could reasonably be expected to interfere with technological measures used by copyright owners to prevent such retention or unauthorized further dissemination;"; and

(2) by adding at the end the following:

"In paragraph (2), the term 'mediated instructional activities' with respect to the performance or display of a work by digital transmission under this section refers to activities that use such work as an integral part of the class experience, controlled by or

under the actual supervision of the instructor and analogous to the type of performance or display that would take place in a live classroom setting. The term does not refer to activities that use, in 1 or more class sessions of a single course, such works as textbooks, course packs, or other material in any media, copies or phonorecords of which are typically purchased or acquired by the students in higher education for their independent use and retention or are typically purchased or acquired for elementary and secondary students for their possession and independent use.

"For purposes of paragraph (2), accreditation—

"(A) with respect to an institution providing post-secondary education, shall be as determined by a regional or national accrediting agency recognized by the Council on Higher Education Accreditation or the United States Department of Education; and

"(B) with respect to an institution providing elementary or secondary education, shall be as recognized by the applicable state certification or licensing procedures.

"For purposes of paragraph (2), no governmental body or accredited nonprofit educational institution shall be liable for infringement by reason of the transient or temporary storage of material carried out through the automatic technical process of a digital transmission of the performance or display of that material as authorized under paragraph (2). No such material stored on the system or network controlled or operated by the transmitting body or institution under this paragraph shall be maintained on such system or network in a manner ordinarily accessible to anyone other than anticipated recipients. No such copy shall be maintained on the system or network in a manner ordinarily accessible to such anticipated recipients for a longer period than is reasonably necessary to facilitate the transmissions for which it was made.".

(c) EPHEMERAL RECORDINGS.—

(1) IN GENERAL.—Section 112 of title 17, United States Code, is amended—

(A) by redesignating subsection (f) as subsection (g); and

(B) by inserting after subsection (e) the following:

"(f)(1) Notwithstanding the provisions of section 106, and without limiting the application of subsection (b), it is not an infringement of copyright for a governmental body or other nonprofit educational institution entitled under section 110(2) to transmit a performance or display to make copies or phonorecords of a work that is in digital form and, solely to the extent permitted in paragraph (2), of a work that is in analog form, embodying the performance or display to be used for making transmissions authorized under section 110(2), if—

"(A) such copies or phonorecords are retained and used solely by the body or institution that made them, and no further copies or phonorecords are reproduced from them, except as authorized under section 110(2); and

"(B) such copies or phonorecords are used solely for transmissions authorized under section 110(2).

"(2) This subsection does not authorize the conversion of print or other analog versions of works into digital formats, except that such conversion is permitted hereunder, only with respect to the amount of such works authorized to be performed or displayed under section 110(2), if—

"(A) no digital version of the work is available to the institution; or

"(B) the digital version of the work that is available to the institution is subject to technological protection measures that prevent its use for section 110(2).".

(2) TECHNICAL AND CONFORMING AMENDMENT.—Section 802(c) of title 17, United States Code, is amended in the third sentence by striking "section 112(f)" and inserting "section 112(g)".

(d) PATENT AND TRADEMARK OFFICE REPORT.—

(1) IN GENERAL.—Not later than 180 days after the date of enactment of this Act and after a period for public comment, the Undersecretary of Commerce for Intellectual Property, after consultation with the Register of Copyrights, shall submit to the Committees on the Judiciary of the Senate and the House of Representatives a report describing technological protection systems that have been implemented, are available for implementation, or are proposed to be developed to protect digitized copyrighted works and prevent infringement, including upgradeable and self-repairing systems, and systems that have been developed, are being developed, or are proposed to be developed in private voluntary indus-

try-led entities through an open broad based consensus process. The report submitted to the Committees shall not include any recommendations, comparisons, or comparative assessments of any commercially available products that may be mentioned in the report.

(2) LIMITATIONS.—The report under this subsection—

(A) is intended solely to provide information to Congress; and

(B) shall not be construed to affect in any way, either directly or by implication, any provision of title 17, United States Code, including the requirements of clause (ii) of section 110(2)(D) of that title (as added by this Act), or the interpretation or application of such provisions, including evaluation of the compliance with that clause by any governmental body or nonprofit educational institution.

Passed the Senate June 7, 2001.

Attest:

Secretary.

107TH CONGRESS
1ST SESSION

S. 487

AN ACT

To amend chapter 1 of title 17, United States Code, relating to the exemption of certain performances or displays for educational uses from copyright infringement provisions, to provide that the making of copies or phonorecords of such performances or displays is not an infringement under certain circumstances, and for other purposes.

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